

Data Center Strategy

Speakers: **Riley Star, IBM**
 Steve Sams - Vice President, Global Site and Facilities Services

Riley:

Welcome to this IBM podcast series focused on how to optimize your technology and infrastructure. I am Riley Star from IBM. Through this series we will cover topics that help a lower IT complexity and improve operating efficiency along with tips and advice on using technology and services to help you in your company succeed. I am joined today by Steve Sams, IBM Vice President and resident expert on Data Centers to talk about how IBM can help you save significant capital and operational costs when you are consolidating or relocating your data centers while reducing project risk and meeting your application outage window. So please join us as we discussed this timely topic.

Steve, are you saying more clients looking to consolidate their data centers?

Steve:

While Riley given the high level of economic uncertainty we've seen in the last 9 to 12 months we clearly are seeing clients both large and small really looking at how to take significant cost out of their data infrastructure. When we look at clients we found that the rationalization, the consolidation of their data center infrastructure can reduce their operating costs by significant amounts. 50% reductions and operating costs are pretty typical in this environment. There was a Goldman Sachs survey that we sought recently and this whole concept of data center consolidation last year US CIOs rank that as kind of their number 22 on their hit parade. This year it's moved from 22 up to number 5. So this is clearly a topic that's kind of front of mind for most of the CIOs that we deal with today.

Riley:

What are the main challenges clients face when consolidating and relocating their data centers?

Steve:

Since we see a large number of clients potentially almost half of our clients going through either a consolidation exercise or an expansion exercise these clients will be migrating their applications and their technologies between sites. When they do that we really see three main challenges. The first is around doing these migrations within potentially a very, very small availability window meaning they need those applications up and running maybe 24 hours a day, 7 days a week. So the availability when window might be as low as zero.

The second thing that we see in terms of challenges is they want to do it, they want to be able to do this migration about the applications and in many cases the physical hardware and software in

a manner that really mitigates risk meaning if a device got lost, if a device got broken in the move than they haven't lost their data and they haven't lost their applications. All of this stuff continues to run and this is still migrated from the old location to the new location.

The last set of issues is these are generally very complex things. We are dealing with thousands of applications. We are dealing with thousands of pieces of data. We are dealing with in many cases a great number of vendors. Vendors in terms of the technology, vendors in terms of the software applications and vendors in terms of who's actually providing the data or the networking and everything. So we are dealing with a multitude of vendors that connect at the logical point, at the physical point and maybe the providers of the data and applications. So these are very, very complex scenarios and customers are concerned about availability, concerned about risk and concerned about the complexity of handling this very multivendor environment.

Riley:

Okay. When a client does relocation with IBM one of the benefits that they will realize?

Steve:

Well over the last two or three years we have migrated hundreds of thousands of servers and thousands of applications from all of the major IT vendors. We really see that we provide three major benefits for our clients. They're kind of focused on the risk that we talk about. First of all we really do focus on meeting those availability needs. We can now by the way help customers migrate data from a database real time while that data is still in production. The from a data perception we can clearly get to zero downtime during the data center migration.

The second major benefit that we offer is because we do manage the risk very well we can reduce the project risk. We are used to managing this complexity. We do thousands of client engagements a year. We have fantastic toolsets to help ensure that we understand the risks and manage them very tightly. So we can really help ensure that the project risk in these scenarios is very, very small.

The last thing we can do is we can really focus on the project cost and schedule. As an example there are cost trade-offs that are associated with risk. You can reduce the risk by in essence buying a duplicate of the technology that you have today and put it in the news site, pre-test it before you ever moved and then just move the data and applications from one box to the other box that has exactly the same technology. That comes with a premium price. So we help work with the client within their budget to determine what the alternatives are within that budget with different risk parameters and make sure that we have aligned at the risk and cost appropriately against the application suite. For those applications that the client wants to ensure are absolutely risk independent we may use a more extensive technique than one application that you could potentially afford to be not available for an hour or two if something happens.

So those three things, application availability, reducing the project risk and managing the cost and schedule are clearly the things that we do very well.

Riley:

That's very helpful. Can you give us a few examples of how IBM has helped clients reduced risk and maintain availability?

Steve:

I will give you a recent example with the US financial services company. We helped them consolidate about 3000 servers that were spread across nine data centers and move them into three. We did that while maintaining an application window that in some cases was as small as five minutes. One of the applications could be unavailable for five minutes but no more than that. So we clearly delivered that solution and when we deliver that solution in that kind of availability window a client actually found that their operational costs had dropped by about 12 to 15%. So they made the move, they found the savings, the risk was eliminated and we stayed within the availability windows that were described which in this case were five minutes or less.

Another example I will use is a relatively large US university where we were moving about 600 servers and about 500 different applications from their old data center to a new data center on campus. Again this had very tight availability windows and had a very tight budget constraint. We were able to provide that level of service within this very tight budget.

Riley:

Steve what does IBM do that is unique in helping clients implement data center relocations?

Steve:

Well the bottom line is we are maniacal about reducing the risk of these. We realize that these migrations are in essence migrating the life blood of the business from one physical facility to another. So we are investing all the time in tools and technologies and capabilities to mitigate that risk. So as an example what we do is we do some pretty serious stuff in terms of stimulating and documenting fallback plans in case the worst-case scenario possibly happened. We try to eliminate the need for fallback plans or any kind of delays by pretesting the environment and pretesting the plan that we are about to execute. We also ensure that we build the right logistics to ensure that things happen together that need to happen together.

One thing that clients might not think about in these is that these moves in many cases may not all happen at one specific point in time. You may not turn one thing off, turn the whole shop off and then turn the whole shop back on all at one moment in time. You are staging a series of moves. One of the things we do is we do pretty extensive analysis around what are the applications that are being moved and are we really matching the applications to the server and storage devices that exist on those applications and we move these things in something that we call workgroups. As we move that workgroup and deliver a back to the new environment and then bring it back up we then know that you have all the storage devices, all the server devices,

all the network devices that were associated with that workgroup so the whole application is brought up and onboard in that new site all together.

So that kind of analysis, this workgroup clustering is actually work that we had our research community do for us. So they have a set of search engines that we installed very early in the client that discover the applications, the technologies and the alliances between those applications, the technology so that we can really characterize where these workgroups are, how they get moved together and how we bring them up together so the customer doesn't see any down time and we mitigate the risk.

It's very clear that when we get into customer environments that if we ask the customer the answer to those questions without the tool sets to inquire and discover where these alliances exist then a great many cases the clients clearly not have this level of detail and may not have recognized the changes that have taken place in their environment over the last two to three months that they may not have recorded. So this kind of discovery and this kind of work with research to bring these tools and capabilities to our customers is a real good example of IBM's unique capability.

Riley:

Okay, if our listeners want to find out more about how to get started where can we have them go?

Steve:

Well our materials along with customer references for consolidation and relocation can be found at www.ibm.com/services/siteandfacilities.

Thanks very much.

Riley:

Steve thank you so much. This concludes our podcast today.