

## HP's BTO Chief Ben Horowitz on How Application Lifecycle Optimization Enhances Next Generation Data Centers

*Transcript of BriefingsDirect podcast recorded at the Hewlett-Packard Software Universe Conference in Las Vegas, Nevada the week of June 16, 2008.*

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**Dana Gardner:** Hi, this is Dana Gardner, principal analyst at Interarbor Solutions, and you're listening to a special BriefingsDirect podcast recorded live at the Hewlett-Packard Software Universe Conference in Las Vegas, Nevada. We are here the week of June 16, 2008, for this sponsored HP Software Universe Live Podcast series.

Today, we welcome Ben Horowitz. He is the vice president and general manager of HP's Business Technology Optimization (BTO) software unit. Welcome to the show.

**Ben Horowitz:** Thanks very much, Dana, it's exciting to be here.

**Gardner:** I really enjoyed your presentation on the main stage this morning. As we are in Vegas, I thought you had a good stand-up comedian style. You had the audience in the palm of your hand.

**Horowitz:** Well, I appreciate that, but I'll try to leave the jokes on stage.

**Gardner:** Well, we try to make these podcasts entertaining too. One of the things that's a recurring theme here is, of course, data center transformation, helping enterprises move their data centers to a higher level of efficiency and also cut costs. Part of that equation requires that your applications are built well, too.

So, I want to talk a little bit about this whole notion of better practices and standard methodologies around good application development, testing, and deploying, more towards the lifecycle approach. One of the things that I have heard described from the BTO organization is this notion of application lifecycle optimization. I wonder if you could unpack that a little bit for us.

**Horowitz:** Sure, when you look at the history of applications, and Web applications in particular, originally it was great. There was this new way to develop the applications, it was much easier than the old way, and people developed a lot of applications quickly. Then, they put them out there, and the applications didn't work too well.

So, the first thing that companies went to tackle was testing, functional testing, and performance testing. Of course, HP owns the most famous product line in that space, the franchise that was Mercury, with our great quality center and performance center products, and those have been terrific.

We have heard from customers, as they have got more and more sophisticated, that what they'd really like to do is be able to map very, very precisely everything that they are doing with that application, from the point that they set the business priority.

So, there is something in the business that says, "We have to solve this problem. We have to provide the service, and therefore, we are going to create some functionality and build an application, test it, understand its performance characteristics, make sure it's secure, and then put it out in the environment. The question that we asked ourselves was, "How do you do that, and how do you make sure that you are aligned?"

**Gardner:** That raises this issue about boundaries. There have been boundaries between elements within application development, which application management techniques and products help fix, but there is a larger boundary between what happens on the application side and what happens on the operational side.

Now that we are in the era of service-oriented architecture (SOA) and virtualization, these boundaries no longer can stand. What is it that you are doing with your products and your announcements here, at Software Universe that can help organizations overcome these inefficient boundaries?

**Horowitz:** First, we have done a great, new integration of our Project and Portfolio Management (PPM) software, which understands all of the business requirements and their priorities and the overall project status and project resourcing.

Then, we have taken that information and we have mapped it directly into quality center, into our requirements management module. So now, for every technical requirement that we go to test, we know exactly what the business driver for that was, and that becomes very, very powerful.

Then, those requirements feed in parallel into the quality organization, as well as into the development organization. By doing that, we support a much more agile project process where the quality guys are coming up to speed, on point with the developers.

And then, on the back end, we've then integrated our new Application Security Center, offering that we acquired with SPI Dynamics into quality center. So, in a single place you can test -- you can do functional testing, quality testing, as well security testing.

So, at the end of the cycle, you have a completely tested product where you have a total understanding of where you are, versus the business requirements, and in fact, we enable you to generate a contract with the business that declares an understanding of the level of quality that you have achieved at the point of release.

**Gardner:** So, ameliorating the boundaries means bringing more people in earlier in the process, but doing it in a way that doesn't create chaos, that is organized through a workflow. Everyone's ultimately on the same page, but early enough in the process, where you can have an impact on the overall application.

**Horowitz:** Right, exactly. What we were doing is saying, "All these things that used to be conversations that may or may not have happened, and were never recorded, now become a part of a very simple work flow that basically ensures that you have alignment from end to end. So whatever you wanted to build, that's what you actually end up building.

And, having everyone in the organization in the same page is it just tremendous -- not only a time saver, but also building the right thing in software development is probably the biggest thing that distinguishes good organizations from bad. The ones that solve the right problems are generally the ones who are successful.

**Gardner:** Another thing we are seeing in the market is the need for a lifecycle for applications that almost leave them in perpetual development mode. Increasingly with agile and with services, an application doesn't just go out into production and stay there for years at a time. How do the feedback loops work between requirements, deployment, and then refinement?

**Horowitz:** One of the great things that we have in the new integration that we have between PPM and Quality Center is that, when we go to manage the many, many incoming requests for changes (RFCs), we do that in the context of the business priorities.

So, by knowing and having right there all of the overall business priorities in conjunction with all of the change requests, and all the technical risk assessments, what is it going to cost us? How important is it to the business? And how many requests we have on it all go into the picture. Then, we are able to quickly figure out, "Okay, here are the changes that we ought to make to the application that are low enough risk and high enough pay off, that we think they make sense."

Then, once we have developed that, and we are ready to release, we have tight integration with our operational software. So, all of the things that we know at the time that we tested that change go into operation. So if you know, "Gee, once we get a million users, this change is going to cause the application to break," that's known on the operational side, so that they can be proactive in managing the consequences.

**Gardner:** One of the announcements that you've made here at the event that caught my attention was the move towards a federated configuration management capability, that uses connectors and modules, and basically brings more information about the systems into a place where it can be viewed, I guess, moving towards greater visibility. Tell us a little bit about how greater visibility into what's going on within these systems ultimately helps with the total lifecycle benefits?

**Horowitz:** This is a very interesting and important question. There are lots of parts to the answer, but the first thing that people need to know about it is in HP Business Availability Center (BAC) we can tell you "Gee, this application is getting slow.

Something about it is slow." And, that's good to know. But, the next thing that you might want to know is, "Did Opsware change anything in that application, that might have caused it to get slow?"

In order to answer that question, Opsware has to have the same view, i.e. have the same definition of what BAC thought was slow as BAC does. With the configuration management database (CMDB), that's the kind of thing that we are able to do. Similarly, if you want to open an incident on that application, the service manger has to have that same definition.

That's the kind of high-level problem that we are trying to solve. Now, the way that we have done it with a federated configuration management system is unique in the industry.

We have seen approaches from certain competitors for certain products, whose names will go unmentioned, who have come up with the idea that, "If we just had all of the data in the same place, then the customer could do whatever they wanted with it." That seems like a good idea, but it turns out to be quite a bad idea.

The reason is that all of the data and all of the products have been optimized over many, many years for performance -- tons and tons, hours and hours, and probably hundreds of man-years -- into making that data very easy to retrieve for the people who need to use it in that context.

What the competitors do is say, "Well, that performance optimization will be an exercise for our customers. They will have to figure how to make the data perform." That has proven to be pretty much an everlasting job. Gartner reports that only 4 percent of these CMDB implementations have succeeded, and that those 4 percent probably were not trying to do anything too ambitious.

With our federated approach, we say, "Let the data live where the data lives. Let the products do what they know how to do. Get the benefit of all that performance engineering that's been done over all the years." What we provide is essentially a map or a directory to all of the bits of information in a reconciled fashion about, for example, a server.

In our product line we have server information stored in Opsware, stored in BAC, stored in HP OpenView, stored in Service Manager, and the CMDB is able to get those data sets from all those locations and reconcile them, so that you have a single notion of that server.

**Gardner:** This strikes me as something that can open up even wider federation. Think about all the information for governance, for example, in a registry repository. Think about the information that's available through service level agreement policy engines. We can maybe start to break down the boundaries at yet another abstraction, another level. Does that make sense?

**Horowitz:** Yes, definitely. What we really have is the "master join," for those who know relational databases, amongst all of the data and all of the products. Here is a way that's very high performance, where we have done a tremendous amount of work on making it really easy to integrate. That can be a central way to get all of the data about the various things -- everything from a service level agreement (SLA), to a server, to a network device, to an application -- that you have running in your environment. That's something that nobody has and everybody would like. So, it's great to be able to ship that.

**Gardner:** Another announcement today was an alignment with VMware on some products. Tell us a little bit about first the market opportunity for the virtualization space and how management is an important element for people to actually attain the goals that they now fully understand with virtualization, and then how that relates back into our discussion about breaking down boundaries and finding more of the lifecycle benefit across development and design time into runtime in operations.

**Horowitz:** Virtualization is probably the most important mega trend in the data center right now. All the customers that we talk to are moving pretty aggressively towards a virtualized environment. That environment provides a ton of benefits, which is why everybody is going there, but it also creates a whole set of new challenges around management. Now, you've got another layer of abstraction. You've got another really complex piece of software to manage in the hypervisor, in that the software needs everything from patches to configuration changes and to upgrades.

You have to understand how all of that works together. By working with VMware, which really is the product leader in the space, we are able to bring all of the value of HP software to the virtualized environment.

So, it's great for the VMware customers, in that they get a real first-class management system that seamlessly moves across virtual and physical environments, and servers and network and storage. It's great for us, because it means that our customers, as they add VMware into their environment, have a solution that already works.

We think that everybody is going to be really excited about it. It's an R&D relationship, it's not a marketing relationship, so we think that we are going to get really good product results out of it, and it will be terrific for our customers.

**Gardner:** Well, great. We really appreciate your time. We've had a conversation with Ben Horowitz, the vice president and general manager of HP's BTO software unit. You've had a busy schedule. I appreciate you taking some time.

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Network. I will like to thank our producers on today's show, Fred Bals and Kate Whalen, and also our sponsor, Hewlett-Packard.

I'm Dana Gardner, principal analyst at Interarbor Solutions, thanks for listening, and come back next time for more in-depth podcasts on enterprise software infrastructure and strategies. Bye for now.

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