

Applications for BladeSystem

Mike: Hello, my name is Mike Engbrock. Like me you have heard about all the benefits from deploying HP BladeSystem. For example you have heard that it is time-smart, energy-thrifty, change-ready, and cost-savvy. And you also heard about the modular components that make HP BladeSystem an infrastructure not just a server.

But you're probably asking yourself what about my applications

I am here with Russ Coombes HP and Russ, if its OK with you I'd like to talk about the applications I run in my business and how they can benefit from BladeSystem

Russ: Sure, Mike, exactly what did you want to know?

Mike: Well, this new technology sounds exciting but my company uses software applications. Any infrastructure I consider will need to support my applications.

Specifically I need to know if I can take advantage of this new technology with my existing applications.

And what about new applications that I will need to deploy in the future?

Are there any restrictions on how I fully take advantage of this new infrastructure?

Russ: Excellent questions, Mike.

The point is -- All the benefits of this new infrastructure are available to your existing applications. HP and our partners have been and are continuing to enable the broadest range of applications to meet your business needs. And all of those applications are available on HP BladeSystem.

The reason we can do this is that HP BladeSystem supports the major operating systems including Windows, Linux, HP-UX, and even Solaris. Now we optimize these operating environments for BladeSystem, which gives you the ability to deploy the application that meets your business needs. And BladeSystem will work with the applications that you use today and in the future

A key component of HP BladeSystem – BladeSystem Management Suite -- will, in many cases, enhance the deployment of your applications saving you time and operational expense

HP says BladeSystem is cost-savvy. For example as you add production applications, each application requires less incremental infrastructure investment because of the scale-out, modular approach. Every device in a BladeSystem – servers, storage, network, and power can be purchased as needed and plugged into a consolidated enclosure. As you add more applications you are able to leverage your earlier investments to reduce the cost of deploying and supporting the additional application

Mike: So you are saying that BladeSystem is an infrastructure for the deployment of ALL my applications. All major operating systems are supported and all applications that run on those operating systems?

Russ: That's correct, Mike.

Mike: Well OK but help me understand this. Can you give some examples?

For my organization a lot of servers and applications use Windows & Linux. Is Windows & Linux really being used on BladeSystem

Russ:

What your organization is doing is like a lot of organizations—if you look at the market data for blade servers the large majority of deployments of blade servers are evenly split between Windows and Linux. This is where we see the majority of HP BladeSystem deployments.

Mike: The use of virtualization is a growing activity in my organization. Can you help me understand server virtualization in a BladeSystem environment?

Russ: Absolutely.

HP recognizes the increased adoption of virtualization means that an organization requires an infrastructure that can support virtual servers for whatever application environment is being used.

With BladeSystem we do that.

As well as our own virtual server environment for HP-UX, we partner with the major virtual machine vendors like VMWare, MS, XenSource to generate Linux, Windows, and HP-UX virtual machines. To enhance the HP BladeSystem experience we have management tools, part of the HP BladeSystem Management Suite, such as System Insight Manager and Virtual Machine Manager that enable us to manage multiple virtual machines through a single console.

Russ: Thanks, Russ

Let me tell you, the use of Windows applications has expanded over the last 10 years in my organization. And it seems each application requires its own or multiple servers. Users really like these easy-to-use, easy-to-deploy applications. Individually they have been much cheaper to run but the number of servers we have deployed have created their own problems. How I manage this complexity in a cost-effective manner and keep my users happy is a big concern.

We have been using virtualization to help us consolidate some of these but is there more that BladeSystem can do?

Russ: I know what you mean – you are not alone.

Many organizations have told us that standard tasks and IT processes take too long, preventing organizations from reducing the cost of operations so they can devote more resources to new services. Too much time on maintenance; not enough time on innovation.

The new c-Class BladeSystem is an infrastructure that resolves these problems in Windows environments. BladeSystem enables smarter management of your time—it is time-smart.

HP BladeSystem greatly simplifies the integration of multi-server environments, helping businesses of any size operate efficiently, grow flexibly, and control costs effectively. An HP BladeSystem infrastructure gives businesses of all sizes an affordable foundation for growth—one that is nimble and flexible, built on the best enterprise-class technology to allow even the smallest businesses to match the capabilities of their largest competitors.

Mike: “Time smart”—that sounds like something I need!

It sounds like all Windows applications can take advantage of a BladeSystem infrastructure.

Let me give you an example ... My organization has adopted a server-based approach to application deployment. Server-based applications provide us with higher degrees of information security, quicker application deployment, and better control of our resources.

How would a BladeSystem help us here?

Russ:

A BladeSystem infrastructure enables an organization to easily scale their server-based environment. Additional blade servers can be added or re-purposed quickly and cost-effectively as the application need changes. The use of the BladeSystem Management Suite allows an IT organization to understand the demands on this environment and react quickly.

Organizations such as yours have recognized the value (benefits?) of BladeSystem for server-based applications.

The leading server based computing supplier, Citrix, reports that the majority of their customers upgrading or investing in new infrastructure are using HP BladeSystem to run those applications.

With the c-Class BladeSystem this gets better -- organizations will have a platform for server-based computing that increases the abilities in the areas that drive them to select BladeSystem—density, energy efficiency, and operational control.

Mike: OK let's talk about an application that everyone deals with – electronic messaging systems. I don't have to tell you how business-critical email is -- if email is un-available I hear about it pretty quickly.

Microsoft Exchange is the most widely deployed electronic messaging system in use today. Exchange is a platform for the deployment of collaboration, work flow, and mobile applications and it is mission critical.

How about Microsoft Exchange? What about moving my Exchange environment to HP BladeSystem?

Russ: HP has done a lot of work with Exchange running on HP BladeSystem.

HP has provided information on the Best Practices to deploy Exchange on an HP BladeSystem, available on our web site. We have demonstrated the performance of this application on our blade platforms

We've seen that using BladeSystem as the infrastructure for Exchange installation increases the reliability and flexibility for an organization while reducing your overall cost.

You may have attended the Microsoft worldwide seminar series called Ignite – where Microsoft began talking about the next version of Exchange. The hardware platform that Microsoft used as their reference platform in that seminar series was – HP BladeSystem

With the next release of Exchange—Exchange Server 2007—Microsoft will be adding capabilities to Exchange that the c-Class BladeSystem will **un-leash**.

Mike: **Sounds like an exciting opportunity coming up!** OK I'm convinced about Windows. But what about Linux. Linux is quickly becoming a very popular operating system in my company. How well does HP BladeSystem work with Linux?

Russ: As I mentioned earlier, customer deployment of blade servers is evenly split between Windows and Linux. Linux is a major driver of blade implementation.

Mike: Why is that?

Russ: Well, HP has seen that a lot of Linux adoption has come about from UNIX to Linux migrations. Customers want to use Linux as an enabler to get to a lower cost, higher-performing platform. As you've heard earlier the BladeSystem platform is the most cost-savvy platform.

Mike: How does HP approach using Linux on BladeSystem?

Russ: The HP Value Proposition of Linux on BladeSystem is if you get the infrastructure right everything is possible.

What we mean by that is that we give you the assurance of deploying applications on Linux with BladeSystem by way of tried-and-tested integrated stacks. Not only have we certified the major Linux distributions from RH and Novell but we have also introduced....

...Linux and Open Source Infrastructure Solutions We approach Linux and Open Source Infrastructure solutions in three distinct ways:

- Foundation
- Enhancements
- Open Source Integrated Portfolio

Mike: Wait a minute I am not sure I understand --- can you take me through these Linux and Open source implementations.

Russ: The Linux and Open Source Infrastructure foundation provides you with the choice of the two major Linux Distributions: Red Hat Enterprise Linux and SUSE Linux Enterprise Server from Novell. Incidentally these are available to be purchased from HP

In addition to the basic OS, you have the network services such as web serving, FTP, DHCP and DNS for example. And then finally we classify the system management in this area.

Whether it's Red Hat Network or Novell ZENworks from our partners or the comprehensive system management from HP such as SIM or Insight Control Linux Edition.

Managing a Linux BladeSystem environment is the key to maximizing the operational excellence of your datacenter.

Mike: You mentioned Linux and Open Source enhancements to the Infrastructure. Can you elaborate ?

Russ: Sure Mike.

HP works with a number of partners as well as having its own software solutions in areas such as enterprise directory services, security, high availability and cluster file systems.

All of these solutions are aimed to maximize the benefit you can derive from you Linux and open source infrastructure on HP BladeSystem.

Mike: Sounds like HP is really working on solutions for a wide range of Linux users.

Are there other Open Source projects going on that may impact my infrastructure?

Mike: To move even further up the stack, we have recently introduced a program called HP Open Source Integrated Portfolio. Our intention here is to make your deployment of open source-based BladeSystem solutions as simple and effective as possible.

A key part of that portfolio is how we deliver tested integrated stacks consisting of traditional commercial software and/or open source software as well as consulting, integration and support services.

HP has developed an integrated stacks with open source partners like JBoss, MySQL and Symas as well as commercial partners such as BEA and Oracle.

Mike: I'm glad you mentioned Oracle. Oracle is a pretty important application for us. I've already got Oracle running on rack-based and SMP systems. So how would BladeSystem improve upon what I've got.

Russ: HP's long standing relationship with Oracle has been key to providing customers Oracle Grid solutions on HP BladeSystem.

As you may know Oracle is investing in a strategy called Oracle Grid – the ability to distribute their applications across an environment of multiple hardware devices. This makes the overall environment more resilient at a lower acquisition cost. And the ability to add more performance is easier.

A BladeSystem infrastructure is an ideal way to implement Oracle Grid.

HP has developed and published the Oracle Reference Architecture -- a scale out architecture which is built with HP BladeSystem, industry standard servers and components including an extensible fiber channel storage area network, and comes standard with management tools that simplify a host of administrative tasks.

Mike:

What specific products and versions of Oracle take maximum advantage the Reference Architecture?

Russ: Oracle multi-node database (RAC) and application server clusters enable enterprise availability and performance. The key products used in the recommended configurations include Oracle Application Server 10g, Oracle Database 10g, Oracle Real Applications Clusters, Red Hat Enterprise Linux or SUSE, HP BladeSystem servers and management tools from both HP and Oracle.

A solution combining HP, A Linux distribution, Oracle and HP BladeSystem provides a robust, secure, powerful platform for deploying an unparalleled infrastructure environment. As this solution is based on a set of tested configurations, you're risk is minimized and your deployment times are shortened.

Mike: It sounds like I have a number of things to look at to improve my Oracle environment.

You mentioned Grid. That caused me to think about the growing interest we have in deploying compute-intensive environments. Devoting a number of servers, working together, to a single task. What about BladeSystem and high performance computing?

Russ: High Performance computing is an area that has seen significant adoption of Linux with HP BladeSystem. Linux and high-performance computing has seen a dramatic shift in customers demanding scale out Linux clusters and BladeSystem is increasingly a preferred platform.

To address high-performance computational requirements, many customers are replacing large SMP systems with clustered commodity hardware components configured as a “parallel virtual computer.”

The HP BladeSystem portfolio is a great solution for high performance computing. This modular system integrates multiple components, including blade servers, storage, and networking within a shared infrastructure controlled by common system management.

Mike:

What types of organizations and industries will benefit from this?

Russ: Those customer markets where HP BladeSystem can be used include Financial Services Industry, Petrochemical and Oil & Gas, Gaming, Visualization —anywhere large numbers of industry-standards systems can be scaled out to meet application needs.

Mike: This has been really helpful, Russ. Where can I go for more information?

Russ: To find out more about solutions built on BladeSystem go to this URL.

Thanks for your time.

Mike: Thank you.