

INTERVIEW WITH JAGAN KARUTURI

Eric Green: Hello and welcome to a new podcast series from IBM software that explores the challenges IT managers and business professionals are facing today. I'm Eric Green and I'll be talking with a range of experts to discover new perspectives, approaches and examples that can help meet these challenges and introduce you to the capabilities of smarter software from IBM. So let's get started.

Welcome back for our next episode, and today we're going to be talking about application infrastructure. You know, a lot of companies both are home growing their own apps, or bringing other apps in, using COTS apps. Organizations obviously have very large networks with all kinds of different applications being applied in many, many different ways. But application infrastructure and infrastructure management is a key way to sort of keep that all under control. So there to discuss that with us today and more is Jagan Karuturi, IBM's Program Director for Websphere product management. He's responsible for application infrastructure products, including Websphere Application Server. Jagan, thanks so much for joining us today.

Jagan Karuturi: Thank you, Eric. Good to be here.

Eric Green: So as a start, how would you define application infrastructures and how enterprises are leveraging it?

Jagan Karuturi: So application infrastructure is standard base foundation for building and deploying and intelligently managing any applications, including OLTP, batch applications, Web 2.0 applications, mobile apps, all with high performance, transactional integrity, reliability, security and control. So you need a rock solid application server foundation to achieve this. Application server infrastructure brings business agility to the enterprises and makes them highly productive by providing the ability to deliver high quality applications and services, while taking advantage of the new delivery models like Mobile, Cloud and Appliances. It provides the ability to handle more user data and transactions under unexpected peak loads and helps drive down operational costs by leveraging virtualization and cloud-based infrastructures. So essentially, enterprises are leveraging application infrastructure for all of their application needs to differentiate their products and services, to respond quickly to business opportunities, and to grow their business at lower cost.

Eric Green: Interesting. So what's changing today with application infrastructure and how do you see that relating to this area getting smarter, or what we would call more intelligent?

Jagan Karuturi: So the current trends I see emerging in this space is one, the ability to quickly and efficiently build any applications using common application server platform, and share services and infrastructure across these applications. Examples being building OLTP and batch applications and sharing the services, sharing the infrastructure to run these applications. So by doing this, you could leverage the resources for running batch applications and reduce the batch window, so achieve near real-time batch.

The second area is the convergence of Web 2.0 and Mobile, right? Providing the ability to extend the existing and new applications to mobile and provide employees and customers better user experience, and any time, anywhere access to the data. The third area that I see is the distributed caching, boosting the performance and fault tolerance with improved throughput and response time to the client's request. It provides the ability to store the session data in a global cache and scale out application servers independent of the session data, thereby making the applications stateless.

The fourth area is the one you mentioned, intelligent management, right? Intelligent management of the infrastructure and applications, being able to dynamically workload manage a set of applications to share a pool of available resources and hardware. You no longer need each application to provision for peak usage. Right? Being able to detect problem conditions before they occur and take preemptive, preventive actions automatically, being able to seamlessly upgrade your applications without taking an outage.

And lastly there is cloud computing and virtualization, driving operational effectiveness and data center efficiencies, and bringing down operational expenses overall. We know that virtualization is a technological foundation for cloud computing, however the real value comes from cloud computing, you know, the stuff built on top of virtualization, and much of that value is in better processes and discipline. Most of the customers we talk to have problems around knowing which resources are being used for which workloads, knowing who used how much resource, and especially recycling resources when they are no longer used. Right? So this is driving a need for automation, standardization and organization. Right? The automation takes the expensive and error-prone human element out of the equation and makes processes repeatable for

provisioning the virtualized infrastructure and the delivery of the services that run on it.

On the other hand, standardization gives the ability to deploy workloads in the context of standardized, preconfigured workload patterns. They provide the ability to reduce the install and admin tasks, monitor the workloads, share middleware as shared services and elastically scale applications and resources up or down based on the defined policies and service level agreements. Organization gives the ability to manage access to the shared resources, recycle resources when they are no longer needed for a particular purpose, understand who is using what for better capacity planning and chargeback. So these are some of the changes that I see in how application infrastructure is becoming smarter.

Eric Green: That's very interesting. And two things that you mentioned, really seem to – well three, I guess – work together. I mean, you're talking about cloud and virtualization, which obviously we tend to talk about in pairs in one form or another. But mobile applications as well, right? Because pushing mobile applications out by the very nature of how the mobile workforce is working, most of the management and infrastructure is really in the cloud and/or virtualization. So I guess that's probably one of the fastest growing areas, is it not?

Jagan Karuturi: Yes. Yes, it is. And as you can see, the mobile applications are going to become table stakes, right? So most of the enterprises are looking into reaching out to the broader community, whether they are employees, mobile employees, the customers, the suppliers, and mobile applications provide that reach.

Eric Green: Very interesting. So could you provide our listeners maybe some examples of effective application infrastructure?

Jagan Karuturi: Absolutely. Right, let me take a couple of customer examples and how they leveraged application infrastructure to, you know, for their business. Companies today are looking to become more agile while keeping the costs low. One such company is Max New York Life Insurance Company Limited, a joint venture between Max India Limited and New York Life International. They employ more than 15,000 in over 40 offices across India. They sought ways reduce hardware and software licensing costs as part of a company-wide initiative. They wanted to optimize the resource utilization without compromising the availability of the applications. So Max New York Life adopted IBM Websphere

Virtual Enterprise software to run shared server environment for several applications. Using intelligent management capabilities provided by the Websphere Virtual Enterprise, they were able to coordinate, schedule and manage workloads across the pool of available resources, thereby reducing both hardware and software costs. They were able to reduce hardware infrastructure by approximately 50% through management of more applications on fewer servers. So they also increased availability by detecting and responding to unhealthy application servers through defined health policies.

Another example is Milwaukee based Metavante Corporation, which delivers banking and payments technologies to over 8,000 financial services firms and businesses worldwide. Metavante needed to manage fast growth and respond more quickly to the changing market conditions facing the industry, such as shorter development cycles and higher demands for security in their business. So they leveraged the Websphere application server foundation as it offered the innovative, high performance foundation. Metavante needed to build, reuse, run, integrate and flexibly manage applications to meet their business objectives. So they benefited from the broad set of open standards and programming models that are provided by Websphere Application Server, so they leveraged those to increase the developer productivity. And also the flexible management feature that enabled them to control large-scale distributed topologies and ability to comply with the security regulations.

Eric Green: Very interesting. Is one industry ahead of any other particular industry when it comes to managing their application infrastructures and sort of staying on the cutting edge because there's a particular need from that grouping that's further than others?

Jagan Karuturi: In the application infrastructure space, right, pretty much all the industries are looking at these same business values, right? Reduce the cost, do more with less. So, you know, obviously the financial industry is, you know, with the recent developments, they have been ahead of the curve because of the fact that they are under tremendous pressure to cut costs. And I would say if I have to pick one industry, that would be the financial services industry.

Eric Green: Interesting, and due to cost cutting, of course. And so tying that in, I mean, how is IBM innovating in this space?

Jagan Karuturi: Well, IBM is innovating in I would say four key areas in the application infrastructure space. Right? The one is the application foundation, to intelligently build and manage application environments, and to be able to deliver rich user experiences faster, we provide the ability for our customers to build these applications and deliver rich user interfaces. So we recently announced at our Impact Conference our Websphere Application Server Version 8. With this release, we provide support for broad programming models, including Java EE6, OSGI applications, Java batch, XMLs, communications enabled applications, service component architecture and dynamic scripting – basically providing developers a choice to build any applications quickly and be more productive. For example, developers can build OLTP and batch applications while sharing services and deploy applications on a shared infrastructure. OSGI programming model provides increased modularity, enhanced code, reuse versioning and extended stability. So we also improved the performance, hardened security, better install and maintenance, enhanced problem determination and administration capabilities. No other application server in the market has the breadth of capabilities like the Websphere App Server.

Two, we also announced Web 2.0 and Mobile feature pack, enabling enterprises to extend the reach of their existing applications from desktop to the mobile devices, while leveraging their existing Web 2.0 skills. With this offering, we provide developers a consistent standards based programming model for desktop web and mobile web. We also provide high quality touch enabled widgets and themes out of the box and end-to-end connectivity for connecting mobile and desktop UIs to back-end services and data. Essentially, we allow customers to build mobile web applications close to what they get from native web applications.

The third area where we are innovating is the distributed caching space. We announced an enhanced purpose-built, easy to use appliance called IBM Data Power XZ10 Version 2, designed for simplified deployment at the caching tier of the enterprise application infrastructure. This enables business critical applications to cost effectively scale with consistent performance. This offering is a subset of our software offering, which is called Websphere Extreme Scale, which provides ultimate flexibility across a broad range of caching scenarios and in-memory capability for application oriented scenarios.

And lastly, it is no surprise that we are focused on cloud and virtualization, and we continue to evolve our products to improve data center efficiencies and increase the utilization of the resources. We had several new announcements, bringing innovative products into the market in this space. The first one is the IBM Workload Deployer Version 3 to deploy and manage on-premises clouds with ease. So IBM Workload Deployer dispenses and manages Websphere Application Server and Websphere products to virtualized servers and private cloud computing environments. So Workload Deployer dispenses individual patterns, individual or patterns of virtual images into a pool of virtualized resources running on a supported hypervisor.

Eric Green: Excellent. Well, thank you for that in depth look at what IBM is doing as well as the general situation with application infrastructure today. I'm afraid we're actually out of time for this podcast, but thanks Jagan so much for joining us.

Jagan Karuturi: Thank you very much. Glad to be here.

Eric Green: Thanks for listening. Please do visit IBM.com/software to connect with our experts, continue the conversation, and to learn more about smarter software from IBM. Let's build a smarter planet.