

**Objective**

Build the highest performance cloud in the world for big data

Approach

Deploy HPE Gen9 servers as foundation for innovative bare metal cloud to deliver agile, efficient, high-performance Infrastructure-as-a-Service (IaaS) solutions

IT Matters

- Increased overall application performance by up to 70%
- Improved energy efficiency by 35%
- Automated server provisioning for enhanced agility

Business Matters

- Achieved 80% gain in price/performance
- Accelerated responsiveness to customer needs
- Strengthened competitive advantage

Bigstep delivers giant leap in performance with Full Metal Cloud

IaaS innovator transforms big data analytics with HPE Compute



As the fiercely competitive cloud market heats up, all eyes are on a powerful newcomer, Bigstep, and its Full Metal Cloud. Built on HPE Gen9 servers, Full Metal Cloud is transforming the world of big data analytics by delivering the world's highest performance cloud, with hardware-isolated security and industry-leading efficiency.

Revolutionary bare-metal cloud

Bigstep provides infrastructure-as-a-service (IaaS) solutions for enterprises with no-compromise big-data requirements. This includes retailers using behavioral analytics to optimize merchandising strategies, security companies that thwart potential threats by analyzing communication patterns, and digital marketers tracking myriad statistics to ensure successful campaigns.

While many companies like these have turned to public clouds for their agility and economics, performance is often less than optimal. Bigstep solves this dilemma with a revolutionary cloud offering, purpose-built for big data. Harnessing the price/performance

“We believe our combination of bare metal power and cloud flexibility—powered by HPE ProLiant Gen9 Servers—is a very compelling proposition for any business wanting big data analysis in real time.”

— Ioana Hreninciuc, Commercial Director, Bigstep

advantages of HPE ProLiant DL360 Gen9 Servers and the breakthrough storage density of HPE Apollo 4200 Gen9 Servers, Bigstep’s Full Metal Cloud delivers the flexibility and efficiency of traditional virtualized clouds with the breathtaking performance and hardware isolation of a bare-metal infrastructure.

70% performance boost

It may seem like a simple difference, but by eliminating the virtualization layer in its Full Metal Cloud, Bigstep is revolutionizing big data analytics. In fact, Hadoop distributions, NoSQL databases, and analytics engines can achieve up to 500% better performance running on the Full Metal Cloud compared to virtualized public clouds.

Ioana Hreninciuc, Bigstep’s commercial director, explains, “We launched Bigstep as a genuine alternative to the other IaaS options in the market. We realized that a hypervisor can waste 20 to 80% of a server’s bare metal power, depending on the workload. So we removed it, creating the world’s most powerful public cloud.”

Alex Bordei, product manager at Bigstep points out that because of his company’s unique approach to IaaS, choice of server was extremely important. “Our customers are enterprise customers, so the type and brand of servers we offer really matters. That’s why we chose HPE Gen9 servers as the technology foundation for our Full Metal Cloud.”

When it comes to performance, HPE ProLiant DL360 Gen9 Servers demonstrated from the start that they not only met but exceeded Bigstep’s performance expectations.

“Because our promise is to be the highest performance cloud, we constantly have to test how applications perform on our infrastructure,” notes Hreninciuc. “When we introduced HPE ProLiant DL360 Gen9 servers, we were so excited because we knew they would provide higher performance. But we were amazed by the results we actually got—a 70% improvement.”

Breakthrough energy efficiency

For many IaaS vendors cloud compute pricing is a “race to the bottom.” Again bucking trends, Bigstep competes effectively on price without compromising performance or agility. The key is lowering costs by leveraging the energy efficiency of HPE ProLiant DL360 Gen9 Servers.

“We’re seeing a 35% improvement in net energy efficiency right along side the 70% increase in performance,” Bordei reports. “And we’ve tested and benchmarked those results. So in terms of budget, it makes a lot of sense to be on a Gen9 setup.”

He adds, “Power represents as much as 40% of the cost, and since Gen9 servers are more efficient in terms of power consumption, we can significantly lower cost and translate that savings into price/performance gains of up to 80% for our customers.”

Customer at a glance

Application

- Bare-metal public cloud offerings for big data

Hardware

- HPE Apollo 4200 Gen9 Servers
- HPE ProLiant DL360 Gen9 Servers
- HPE ProLiant DL360 Gen8 Servers
- HPE ProLiant DL320 Gen8 Servers
- HPE ProLiant DL120 Servers

Software

- HPE Integrated Lights-Out 4 (iLO4)
- CentOS
- Ubuntu
- Cloudera Hadoop
- Couchbase
- DataStax Enterprise (Cassandra)
- Datameer
- Exasol EXASolution
- Elasticsearch
- Spark
- Splunk

“The bottom line is that with HPE ProLiant Gen9 servers, we’re able to deliver a level of compute for big data applications that is completely unmatched by any other public cloud.”

— Alex Bordei, Product Manager, Bigstep

Unparalleled drive density for parallel processing

When running parallel processing applications like Hadoop requiring greater storage capacity, Bigstep relies on HPE Apollo 4200 Gen9 Servers configured with large form factor (LFF) drives

Bordei observes, “The Apollo 4200 Gen9 servers are very good for us due to their drive density. We need a great deal of drives to parallelize sequential access across them to increase performance, but we don’t want to take up a lot of valuable data center space. The Apollo 4200 Gen9 is perfect for this because it provides us with 28 hot-plug LFF drives in a 2U form factor. That’s a unique capability we can use to our competitive advantage.”

Automated, intelligent management

Bigstep also gains agility thanks to the automated intelligence of HPE Integrated Lights-Out 4 (iLO4) management technology embedded on all HPE Gen9 and Gen8 servers. This enables the company to use the iLO4 out-of-band management interface to remotely configure HPE servers at the hardware level with no manual intervention.

“We just stick the server in a rack, power it on, and automated processes discover and pre-configure its components,” says Bordei.

Award-winning foundation for long-term success

For a relatively new player, Bigstep is making a habit of scooping up industry awards and recognition. For example, in 2014 the company won “Newcomer of the Year” at the UK Cloud Awards.

Hreninciuc remarks, “We were up against a more established firm in Nutanix. But the judges felt that the power and performance of our bare metal cloud was an industry force to be reckoned with.”

Bigstep has also fared well with the “Netcraft Top 10,” an independent and authoritative analysis of the most reliable infrastructure providers. Netcraft measures and makes available the response times of leading hosting providers’ sites. In 2014, Bigstep was featured several times in the “Netcraft Top 10.”

As Bigstep continues to build on its successes, Hreninciuc sees a clear path for the company’s future: “Our vision is that service and customer experience is all that matters. Infrastructure should not matter. But to achieve that, you actually have to have a high-performance, reliable infrastructure. And that’s why we’re working with HPE—because it enables us to provide better performance for our clients at a lower cost, which directly translates into better value.”



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