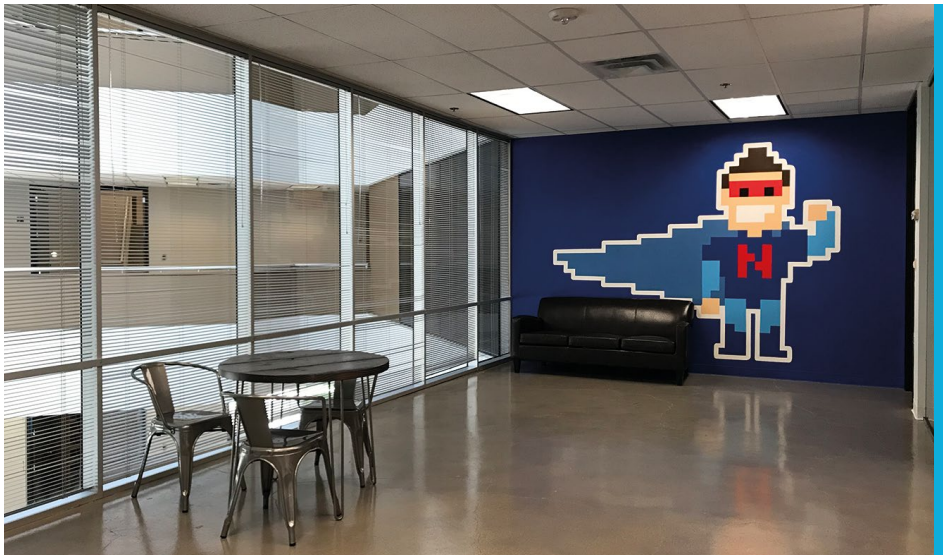

Business challenge

High performance challenges vary, but all businesses want huge speed at affordable fees. Nimbix wanted to democratize access to ultra-high performance computing with its innovative cloud model.

Transformation

In the age of AI and machine learning, businesses are turning to high performance computing for deeper business intelligence. Recognizing this, cloud supercomputing provider Nimbix continually invests in infrastructure that delivers greater performance at low cost, and found competitive differentiation through IBM® Power Systems™ solutions.

Steve Hebert
Founder and CEO, Nimbix

Business benefits

2.5x
speed boost over commodity cloud cuts time to results

4:1
consolidation ratio over commodity cloud helps ensure competitive costs

99%
customer satisfaction rating

Nimbix

Drives unprecedented business insight with supercharged, accelerated cloud computing

Nimbix is a leading provider of purpose-built cloud computing for machine learning, AI and HPC applications. Powered by JARVICE™, the Nimbix Cloud provides high-performance software as a service, dramatically speeding up data processing for energy, life sciences, manufacturing, media and analytics applications. Nimbix delivers unique accelerated high-performance systems and applications from its world-class data centers as a pay-per-use service.

"The breakthrough performance of IBM hardware is a real competitive differentiator for us, especially when aligned with the economics of the system."

—Steve Hebert, Founder and CEO, Nimbix

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Quenching a thirst for supercomputing

Once the exclusive domain of government research labs, universities and major corporations, high-performance computing (HPC) is going mainstream. Across all industries, companies of all sizes are discovering that machine learning and artificial intelligence (AI) can deliver added value to their businesses. Nevertheless, setting up and running an on-premises HPC solution requires significant expenditure and specialist skills, creating a potential barrier to entry. HPC cloud service provider Nimbix addresses this need by providing shared supercomputing resources in the cloud, enabling companies to immediately access all the computing performance they need on a pay-as-you-use basis.

Steve Hebert, Founder and CEO of Nimbix, explains: "Each customer comes to us with a unique need, and it is our job to map the resources that will provide the best results, cost-effectively. As founders of the first purpose-built, award-winning HPC cloud platform JARVICE, we are always looking for new technology that can take our services to the next level of agility, performance and efficiency.

"Uniquely, we offer customers a turnkey solution that enables them to access HPC environments without the cost and hassle of manually setting up the infrastructure they need, so they can focus on getting results fast. To support this level of orchestration, we require high flexibility from underlying resources.

"The world is changing fast, and we are committed to keeping our customers ahead of the curve. The traditional approach to HPC problems is taking general-purpose servers and scaling them up, but new highly parallelized workloads are becoming more important, and these run better on a hybrid of CPU and GPU resources. With this in mind, we always look for great architectures to add to our arsenal of solutions."

"By embracing IBM Power solutions, we have gained new tools to reach both fresh and seasoned users of HPC services, empowering us to continue leading in the accelerated cloud computing arena."

—Steve Hebert, Founder and CEO, Nimbix

Gearing up for super-speed and super-scale

To break new performance barriers in accelerated cloud computing, Nimbix added IBM Power System S822LC for High Performance Computing servers to its cloud services infrastructure.

Steve Hebert notes: "We were attracted to IBM because they share our vision of a future driven by supercomputing and accelerated computing architectures. The IBM team took the time to truly understand the specific needs of the market and created a server solution to meet these needs.

"The IBM Power System S822LC was a clear choice for us, as a solution designed to support accelerated computing. In particular, the unique ability of this platform to use NVIDIA NVLink technology to create a direct high-speed connection between the POWER8 CPU and NVIDIA GPUs ensures great performance for both traditional and non-traditional high performance workloads and is engineered to deliver the best results.

"This IBM hardware is also highly flexible and lends itself well to our containerized applications, which we develop to support a no-compromise approach to cloud computing for our customers. They benefit from superior performance, get native access to computational accelerators and still only have to deal with application interfaces rather than machines or images."

In addition to implementing IBM hardware, Nimbix has teamed up with IBM to deliver proof-of-concept solutions for potential customers keen to try the IBM Power System S822LC server before they buy.

"Working with IBM is helping us accelerate our position as leaders as in this new era of democratized access to supercomputing," says Steve Hebert. "Collaborating in this way has been a great experience for Nimbix and has furnished both teams with a wealth of knowledge that we are translating into value for our customers."

Accelerated computing, quick results

Nimbix is seeing great results since deploying the IBM solutions—enabling it to provide customers with precision supercomputing at unprecedented price-points.

Steve Hebert explains: "Benchmarking against a commodity cloud provider revealed that the IBM Power S822LC offers 2.5 times the performance at a 4:1 consolidation ratio with equivalent memory. The breakthrough performance of IBM hardware is a real competitive differentiator in the market, especially when aligned with the economics of the system. Scalability is essential to accelerated computing, and the IBM Power platform is designed with just this in mind, helping us meet the needs of customers with large computational models that require parallel computing, or very large amounts of processing power."

Nimbix is seeing positive feedback from customers using the platform, and its containerized HPC applications are tempting new users to try out IBM Power Systems technology.

"A San Diego based research group used a Nimbix HPC cloud application running on IBM Power Systems to train a neural network. The research team were so impressed with the Nimbix cloud, they said that it was the highest-performance system that they had ever run their model on. This enabled them to run more models than they had previously anticipated in a much shorter timeframe.

"Experiences like these will help us maintain our 99 percent customer satisfaction rating, which is a good indicator of retention. We're bringing new customers onto IBM Power Systems who have never used it before, and showing them the dramatic improvements it can make for their workloads."

Working with IBM, Nimbix continues to demonstrate its commitment to the bleeding edge. Steve Hebert concludes: "By embracing IBM Power solutions, we have gained new tools to reach both fresh and seasoned users of HPC services, empowering us to continue leading in the accelerated cloud computing arena."

Solution components

- IBM® Power System S822LC for High Performance Computing

Connect with us

Take the next step

To learn more about IBM Power Systems, please contact your IBM representative or IBM Business Partner, or visit the following website: **ibm.com**/power

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