

CASE STUDY  
CRL - COMPUTATIONAL  
RESEARCH LABORATORIES LTD.

# Solutions in the Public Cloud

With its 'Eka' Supercomputing Facility, CRL provides cloud access all over the globe. A live demonstration demonstrated seamless performance oriented scalability for hyper-elastic services – underpinned by a tensile computing infrastructure and a Database Engine by Versant.



**Challenge.** Today's emerging HPC applications must handle complex and large volumes of data, which if not managed appropriately, may result in a serious performance bottleneck. CRL (Computational Research Laboratories Ltd.), a Tata Group company, was looking for a databases engine running on a highly scalable Linux cluster.

**Solutions.** Sustained performance of complex analytics in the face of increasing data. Seamless performance oriented scalability of elastic database services underpinned by a tensile computing infrastructure.

**Results.** In November of 2010, CRL entered into strategic partnership with Versant in a commitment to meeting the end-to-end performance needs of its customers by integrating one of the world's fastest database engines into one of the world's fastest supercomputing environments. The provisioning of end-to-end high performance solutions in a tensile (hyper-elastic performance resilient) cloud infrastructure at CRL will provide a perfect launch pad for innovators in cutting-edge industries and expanding markets in the high performance computing space.

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“Enhancing complex data management capabilities of HPC applications without sacrificing performance allows us to offer a comprehensive solution stack to our data-intensive HPC customers. Having a proven high-performance data engine from Versant in our tensile cloud will be of significant value to our customers.”

Dr. Vipin Chaudhary,  
CEO of CRL

CRL (Computational Research Laboratories Ltd.), a Tata Group company is one of the first companies to provide full service provisioning of HPC (High Performance Computing) solutions in the public cloud. Many of today’s emerging HPC applications must handle complex and large volumes of data, which if not managed appropriately, may result in a serious performance bottleneck.

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## Hyper-Elastic Performance

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## Highly Scalable Linux Clusters

Versant and CRL demonstrated a Proof of Concept (POC) of the combined offering at Super Computing 2010 held in New Orleans, LA in November of 2010. In this POC, CRL’s Platform as a Service (PaaS) leveraged Versant’s database engine, running on a highly scalable Linux cluster, to demonstrate seamless performance oriented scalability of elastic database services underpinned by a tensile computing infrastructure. The live demonstration showcased sustained performance of complex analytics in the face of increasing data.

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## CRL and Tata Group

Computational Research Laboratories (CRL) Ltd., is the world’s first company to offer HPC services in the public cloud. CRL is a member of the prestigious TATA Group and is a wholly owned subsidiary of TATA Sons Ltd. CRL provides a full portfolio of services to make it easy for organizations to exploit the full potential of HPC without the headache of long setup times and huge capital layouts. With its ‘Eka’ Supercomputing Facility, which is among the world’s largest, CRL provides cloud access all over the globe and has proven domain expertise in major HPC verticals such as Automotive, Aerospace, Life Sciences, Media and Entertainment, and Material Sciences.

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