

SGI® Hadoop® Clusters

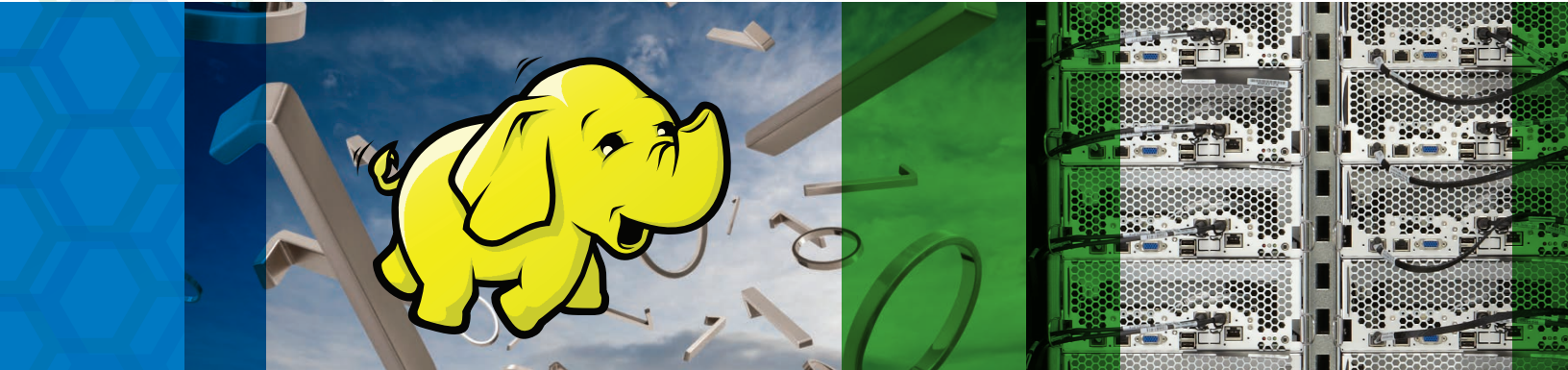
Achieve Faster, Greater Insight at Lower Cost with
SGI® InfiniteData™ Cluster for Hadoop

Key Features

Optimized Hadoop Performance
in ½ the Footprint

Factory-Integrated with
Cloudera® Software

Start Small or Scale
to 1000s of Nodes



Applying HPC Leadership to Big Data Analytics

High performance computing (HPC) has historically been utilized for complex, computationally intensive problems ranging from scientific discovery, to physical simulations, to government security. To extract value from increasingly massive volumes of digital information, HPC is now being applied to the rapidly emerging field of Big Data analytics. And when relationships within data sets are generally understood, enterprises are turning to the open source computing framework Apache Hadoop®. SGI has been a driving force in HPC for nearly two decades and drawing upon our expertise building the world's fastest Supercomputers, SGI was at the forefront of Hadoop with cluster installations now reaching tens of thousands nodes.

SGI InfiniteData Cluster for Hadoop

The potential gains surrounding Big Data are far reaching and also present new challenges: how to derive value at greater speed, scale, and efficiency. Part of a comprehensive suite of HPC solutions for Big Data analytics to include SGI® UV™ systems and SGI® with MarkLogic® Database, SGI InfiniteData Cluster is designed to meet this challenge and enable business and government agencies to leverage Hadoop with faster, greater insight and at a lower cost.

Optimized Performance in ½ Half the Footprint

InfiniteData Cluster delivers optimized Hadoop performance using a unique SGI node architecture that provides over 2X the compute storage density per rack of any enterprise-class HPC cluster solution. Cluster nodes have 1:1 core to storage spindle ratios to speed analytics – SGI TeraSort benchmarks show a 48% boost in Hadoop performance in comparison to 3:1 core/spindle ratios. Featuring dual, 6-core Intel® Xeon® E5-2600 v3 processors and up to twelve 3.5" hard drives per server/storage tray, SGI's 3rd generation tray design enables up to forty 2U cluster nodes and 2.8PB in a single InfiniteData Cluster rack!

Save Countless Man Hours

InfiniteData Cluster solutions for Hadoop software are factory-integrated with the Cloudera Hadoop distribution running on Red Hat® Linux® and SGI Management Center, arriving pre-racked, pre-configured, and pre-tested. Ready to "power up and go," InfiniteData Cluster provides business with a world-class analytics platform in days vs. months and saves IT hundreds to thousands of man hours in set up time.

Flexible Architecture with Unparalleled Scalability

InfiniteData Cluster is designed for maximum flexibility and to expand as your data and compute needs grow. Solutions can start with a small number of cluster nodes in a single rack, or encompass multiple racks with thousands of nodes and linear scalability. The unique form factor of the half-width 2U server/storage tray can accommodate 3.5" SAS or SATA drives with drive capacities ranging from 1TB to 6TB, plus supports Intel Remote Management Module 4. Network switching is available with 1Gb and 10Gb Ethernet connectivity. And for enterprises who wish to leverage InfiniteData Cluster's platform design for technical HPC or cloud computing, 1U trays, higher core processors, and InfiniBand connectivity are also available.

Superior Serviceability and SGI Energy Efficiency

All InfiniteData Cluster components—trays, interconnects, and I/O—are cold-aisle accessible to support high-efficiency, hot-aisle/cold-aisle floor plans. The server/storage trays pull out easily if service is needed and disk drives can be added or replaced in minutes. In addition to valuable space savings delivered through industry-leading density, InfiniteData Cluster also helps lower energy costs as trays utilize high efficiency 660W power supplies and require under 10W per tray for cooling.



Expert Services Coupled with Cloudera Certification

SGI Services personnel bring expertise and experience to help turn powerful technology into business solutions. If you need assistance architecting your Hadoop environment, SGI Services and partner affiliations can fulfill your needs. SGI products are fully backed by warranty with technical support available around the globe up to 24 by 7. Additionally, InfiniteData Cluster Solutions for Hadoop software are fully certified by Cloudera, with pre-configured options for Cloudera Standard or Cloudera Enterprise software, and interoperability with Cloudera's broad analytics partner community.

To learn more about the InfiniteData Cluster for Hadoop solution architecture including performance benchmarks with the Cloudera Hadoop distribution, please see the *Delivering Optimized Performance for Hadoop* SGI white paper. For component technical specifications, please see the SGI InfiniteData Cluster data sheet.



About SGI

SGI is a global leader in high performance solutions for compute, data analytics and data management that enable customers to accelerate time to discovery, innovation, and profitability. Visit sgi.com for more information.

Global Sales and Support: sgi.com/global