

# Accelerate genomics analysis

## Colfax HPC Systems for Genomics

Integrated hardware and software solutions bringing unprecedented scalability, speed and simplification to GATK.

### Colfax and Intel® Rack Scale Design for HPC

Optimized configurations enhance productivity for genomics analysis by leveraging Colfax HPC platforms and the latest Intel® Rack Scale Design (Intel® RSD) architecture.



### Get faster insights

Genomic processing requires immense computational power and storage.

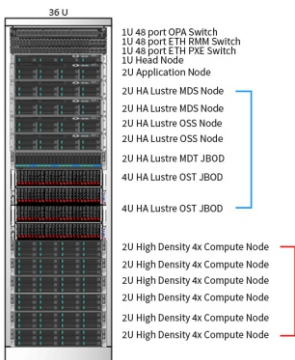
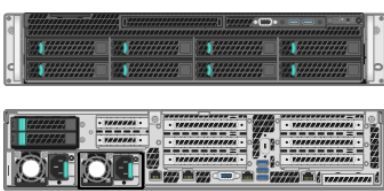

Many researchers, lacking adequate resources, are faced with the challenge of designing and deploying their own infrastructure with little IT expertise or support. Add to this, complex integration and performance tuning of hardware and software — which can take weeks or months, resulting in under utilization of assets thereby causing costly delays for key projects.

### A complete, end-to-end genomic processing system

The Intel® Optimized Genomics Solution is designed to meet the needs of genomics research organizations, enabling them run pipelines faster, easily and support data volumes at truly unprecedented scale.

This highly integrated purpose-built solution provides a high performance computing environment architected to deliver high-throughput for the most demanding workloads, helping researchers focus on accelerating their scientific discoveries.

# Solution Brief

Colfax GSX-24	Colfax GSX-1	Colfax GSX-P
		
SPECIFICATIONS	SPECIFICATIONS	SPECIFICATIONS
<b>Compute</b> 24x Compute Nodes 1x Head Node 1x Application Node	<b>CPUs</b> 2X Intel® Xeon® Processor E5-2699 v4	<b>CPUs</b> 2X Intel® Xeon® Processor E5-2699 v4
<b>Storage</b> <b>High Availability Lustre</b> <ul style="list-style-type: none"> <li>▪ 2x Meta-Data Server (MDS)</li> <li>▪ 1x Meta-Data Target (MDT) JBOD</li> <li>▪ 2x Object Storage Server (OSS)</li> <li>▪ 2x 44 Disk Object Storage Target (OST) JBODs (528-880TB Storage Pool)</li> </ul>	<b>Memory</b> 24x 32GB DDR4 2400 DIMMS  <b>Storage</b> 2x Mirrored DC S3520 480GB SSDs (OS) 4x 4TB SATA HDDs	<b>Memory</b> 16x 32GB DDR4 2400 DIMMS  <b>Storage</b> 2x Mirrored DC S3520 480GB SSDs (OS) 4x 4TB SATA HDDs
<b>Network</b> 100Gbps Intel® Omni-Path Fabric	<b>Network</b> 2x 10GbE  <b>Power Supply</b> 2x 1100W Power Supplies	<b>Network</b> 2x 1GbE  <b>Power Supply</b> 1x 1600W Power Supply (Optional 2nd Power Supply for Redundancy)

## The Colfax Difference

- ▼ Solution Partner for Intel® Optimized Genomics Solution
- ▼ Intel® Platinum Technology Provider
- ▼ Intel® Platinum Technology Provider- HPC Data Center Specialist
- ▼ Leader in Highly Customized HPC Solutions

## Expertly Architected

The Colfax HPC systems featuring Intel's latest compute, fabric, memory, and storage technologies, are expertly architected, pre-tested, and validated in a design that meets a wide range of requirements and shifting workloads.

- ▼ Flexibility of a custom solution with the simplicity, reliability and value of a preconfigured, factory-built product.
- ▼ Based on Intel® Rack Scale Design, delivering increased performance through pooled resources (network, compute, and storage) and enabling hyper-scale agility via flexible, modular architecture.
- ▼ Bundled with Broad's GATK4 and other open source software tools.

The Colfax HPC systems for genomics are designed to help you achieve timely results and insights faster, through quick deployment and high performance, backed by outstanding support. Contact us at [sales@colfax-intl.com](mailto:sales@colfax-intl.com) to find out more.

Learn more at: [www.colfax-intl.com/hpc-lifesciences](http://www.colfax-intl.com/hpc-lifesciences)