Illumina Genomics IT Consulting Services
Designing information technology systems to keep next-generation sequencing data flowing.

<table>
<thead>
<tr>
<th>Highlights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scalable Information Technology (IT) Infrastructure</strong></td>
</tr>
<tr>
<td>Optimized for growth aligned with customer business needs and next-generation sequencing (NGS) data volume</td>
</tr>
<tr>
<td><strong>Open Software Architecture</strong></td>
</tr>
<tr>
<td>Customers can run the software of their choice without restrictions</td>
</tr>
<tr>
<td><strong>Vendor Agnostic</strong></td>
</tr>
<tr>
<td>Leverage industry partners, qualified by Illumina, or existing vendor relationships</td>
</tr>
</tbody>
</table>

**Introduction**

In recent years, next-generation sequencing (NGS) technology has transformed genomics research and changed the scope of questions that can be asked and answered. As the output capacity of sequencing systems continues to increase, developing and maintaining the appropriate IT infrastructure to support massive data sets, without analysis bottlenecks, has become a significant challenge. The process of implementing the appropriate infrastructure often includes sourcing and optimizing hardware, integrating third-party software, and extensive troubleshooting. After the system is constructed, new software from multiple vendors must be integrated and supported over time.

To assist NGS customers with these challenges, Illumina offers Genomics IT Consulting Services (Figure 1). As a leader in NGS technology over the past decade, Illumina and its genomics IT professionals have the experience and expertise needed to resolve a wide range of IT architecture issues. Whether running a fleet of high-throughput systems or a single low-throughput system with unique requirements, Illumina genomics IT professionals are dedicated to providing a successful solution.

**Genomics IT Consulting Overview**

**Initial Consultation**

Illumina genomics IT professionals will review the current lab setup and IT infrastructure needs, identify available options, and work collaboratively with the lab to determine the appropriate IT strategy, whether standard or customized.

**Design Recommendation**

Illumina genomics IT professionals thoroughly evaluate the existing infrastructure, current and future sequencing needs, as well as current and future business demands, to provide detailed hardware recommendations and integrated architecture designs. Illumina IT architects, application specialists, and bioinformatics scientists work together to design a system that will meet the needs of the lab and support successful NGS operations.

**Procurement**

While hardware, software, and support partners vetted by Illumina are immediately available, many customers may have established relationships with other suppliers. To provide a flexible and customized service, Illumina Genomics IT Services will assist customers who prefer to obtain hardware from their own preselected vendors.

**Implementation**

After the hardware systems are in place, Illumina genomics IT professionals make sure that all software components are properly installed and performing successfully. Customers will be able to produce sequencing data and perform downstream data analysis, such as variant calling, gene profiling, discovery applications, and more.
Support
Illumina service and support teams provide a full suite of expedient, customized solutions from initial trainings to instrument support, and ongoing NGS education.

Summary
Given the rapid pace of NGS system improvements and the ever increasing data output volumes, having a fast, secure, and scalable IT infrastructure is vital for the genomic data production needs of today. Whether an onsite or hybrid cloud solution, Illumina consultants leverage the power of their extensive expertise and strive to deliver best-in-class genomics IT services. Illumina is committed to helping customers assess the unique infrastructure requirements of their facility and to providing solutions that can be scaled to meet the business demands of the lab today and into the future.

Learn More
To learn more about Illumina Genomics IT Consulting, Illumina Professional Care Services, or Illumina Bioinformatics Professional Services, visit www.illumina.com/services/instrument-services-training/consulting.html.

Maximize Performance and Productivity with Illumina Services, Training, and Consulting
Whether immediate help is needed during an instrument run, or in-depth consultations are required for sophisticated workflows, Illumina can help. Illumina service and support teams provide a full suite of expedient, customized solutions from initial trainings, to instrument support, and ongoing NGS education. Our support offerings include:

**Product Care Services**
- Tiered Instrument Service Plans + Add-On Services
- Instrument Compliance Services
- Instrument On-Demand Services

**Illumina University Training**
- Instructor-Led Training at Your Chosen Facility
- Instructor-Led Training at an Illumina Training Center
- Online Courses and Webinars

**Instrument Consulting Services**
- Illumina Genomics IT Consulting Services
- Illumina Professional Care Services
- Illumina SeqLab Consulting Service
- Illumina Bioinformatics Professional Services
- Illumina Proof-of-Concept Service

For more on Illumina support offerings, visit: www.illumina.com/services/instrument-services-training.html