Enhance your genomic sequencing operations with BaseSpace™ Sequence Hub on AWS

BaseSpace Sequence Hub is a powerful, easy-to-use bioinformatics compute and storage environment designed to help you build a secure, compliant, and high performing genomic sequencing operation.

Industry trends and challenges
Traditionally, the genomic sequencing space has a large barrier to entry, as it requires large investments in infrastructure. Even companies with existing operations on-premises can experience issues at scale, due to the amount of compute and storage required to manage the massive amount of data they are generating, and the high cost of maintenance. This limits their ability to grow and continue innovating on behalf of their customers.

Why build out your genomic sequencing practice on AWS?
Amazon Web Services (AWS) provides on-demand infrastructure resources and tools designed to be compliant with regulatory requirements, enabling you to simplify and securely scale your genomic sequencing capabilities.

BaseSpace Sequence Hub solution overview
BaseSpace Sequence Hub is integrated with AWS services and your Illumina instruments, so you can more easily manage, analyze, and share your data with a curated set of analysis applications.
Key capabilities*

End-to-end data protection
Data is encrypted at-rest (AES-256) and in-transit (TLS), with three sets of backups stored synchronously across multiple AWS Availability Zones (AZs) for geo-redundancy.

Real-time analytics
Connecting your instruments to Sequence Hub enables you to continuously monitor and improve your practice with real-time sequencing metrics, run monitoring and history, and predictive instrument performance alerts.

Single-click analysis
Create simple, secure, and efficient pipeline configurations to meet your unique needs, and launch analysis workflows at the push of a button.

Granular identity and access management (IAM) controls
Role-based access controls, single sign-on authentication, and virtual isolation of workloads on the cloud enable you to lock down your accounts to adhere to global security and privacy regulations.

Audit-controlled collaboration
Workgroups, and other data management capabilities, allow you to share projects and runs securely with collaborators, without requiring file downloads, helping to meet security and privacy regulations.

Advanced automation and integration
Extensible APIs empower you to integrate AWS service and your in-house informatics systems with Sequence Hub, so you can easily manage and analyze data at scale.

* While many of these features are available on all versions of BaseSpace Sequence Hub, some are only available in the BaseSpace Enterprise subscription tier.

BaseSpace Sequence Hub is third-party certified on the following regulatory standards

Getting started
With Illumina and AWS, customers managing genomic data gain improved data management, protection, and access capabilities.
BaseSpace Sequence Hub is available with three different tiers, which can be launched from: basespace.illumina.com/home/index. To learn more, contact your Illumina or AWS account manager.

If you are a first time user, you will need to set up a MyIllumina account and accept the terms.