

DNAexus[®] Titan[™]

Platform Features & Capabilities

DNAexus Titan powers the future of genomics research and clinical pipelines with trusted, high-performance cloud-based data analysis solutions. Let us do the heavy lifting for your NGS analysis pipelines.



Management & Traceability

Keep track of data provenance.

DNAexus Titan's file management tools enable users to easily upload, organize, search, add metadata, and view a file's source.

Data Archive

Save money by storing infrequently used files in less expensive storage on-demand.

Archive and unarchive files easily. You can search and view metadata even when items are in an archived state.

Data Sharing, Collaboration, Access Control

Collaborate securely and compliantly, across hallways and borders.

Titan provides a centralized, secure environment to manage data and pipeline access on the file, project, and user level. Publish your own tools and pipelines to share them with collaborators.

Audit Trail

De-risk your audits.

Access a human and machine-readable daily log of all activities (login, upload/download, run analysis, data sharing, etc.) related to users and projects of the organization for seamless auditability and reproducibility.

On-Demand Compute Services

Efficiently manage compute resources by using only what is needed.

DNAexus supports a comprehensive fleet of instance types, virtual computer configurations on which jobs can be run on-demand, on both AWS and Azure clouds.

Scalability

Scale your environment in the cloud.

Leverage a platform that can easily match your computational and storage demands up to millions of samples a year and with multiple-regions available as you scale globally.

Spark Cluster Support

Leverage Spark for enhanced performance – no expertise required.

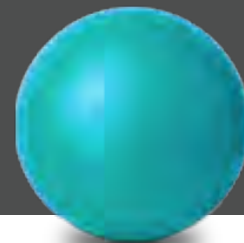
Run robust, distributed, and efficiently parallelized computational jobs easily by launching and managing Spark clusters on-demand.

HTTPS Worker Support

Build custom web-interfaces.

Host HTTP apps in DNAexus jobs and access them via HTTPS URLs, including R Shiny, to quickly spinning up web-based visualizations.

Platform Features & Capabilities



Docker, CWL/WDL support

Move workflows and apps to the cloud.

The platform supports industry-standard Docker, CWL, and WDL, providing pipeline portability for building and hosting your own analyses.

Smart Reuse

Save development time and money.

Reduce development time by eliminating workflow repetition. Apply compute resources only to the downstream parts of the pipelines you're optimizing, allowing for the reuse of outputs from earlier steps that were unchanged, and decreasing the time to iterate on a pipeline code.

Apps & Tools

Leverage out-of-the-box DNAexus apps, third-party apps, or build your own.

DNAexus Titan's app library is full of ready-to-use industry standard pipelines with a workflow orchestration framework. The platform enables you to flexibly import or build custom applications or pipelines.

Integrated JupyterLab Notebooks

Directly access projects from JupyterLab.

DNAexus Titan includes embedded JupyterLab allowing for enhanced collaboration and tracking of work directly in a secure environment.

Data Visualization

Explore genomic data with innovative visual applications.

Data can rapidly be explored and visualized through a genome browser or your own visualization tools.

Developer Experience & Clean API & SDK

Develop on DNAexus using your favorite language.

DNAexus Titan's dx toolkit has language to support creating apps and debugging with ease. Open APIs and SDKs provide the ability to upload and store a variety of different file types with the flexibility to choose command-line or web interface.

Security & Compliance

Keep your data secure and reduce risk.

Titan is compliant with the industry's strictest security & privacy regulations, including ISO27001, NIST 800 framework, HIPAA, PHI-enabled, GDPR, GxP/ICH regulations, CAP/CLIA, FedRAMP Moderate, and hosts data in your preferred geography.

Expert Science & Cloud Support

Solve today's genomic challenges - faster.

Leverage our xVantage Group, a team of expert scientists with deep bioinformatics and cloud expertise and broad industry experience, to help you achieve your goals.

Organization Administrative Tools

Manage your team's DNAexus access and activity.

Leverage administrative tools for continuous visibility and easy management of your team's DNAexus organization-level account. Assign admins, update policies, add/remove members, view compute and billing information, and more all in one place.

*Speak to your DNAexus Sales representative for more DNAexus Titan features and capabilities