Goldman Sachs improves from 1 build every two weeks to over a thousand per day

The dynamic environment at Goldman Sachs requires innovative strategic thinking and immediate, real-time solutions.

Engineering teams removed toolchain complexity and accelerated DevOps adoption through GitLab's automation.

continuously turn data into action. Goldman Sachs' dynamic environment requires innovative strategic thinking and immediate, real solutions. The group was looking to increase developer efficiency and software quality through faster development cycles and decreasing the time spent from feature design to production rollout. They wanted to accomplish all of this while enabling concurrent development activities.

> " GitLab has allowed us to dramatically increase the velocity of development in our Engineering Division. We believe GitLab's dedication to helping enterprises rapidly and effectively bring software to market will help other companies achieve the same sort of efficiencies we have seen inside Goldman Sachs. We now see some teams running and merging 1000+ CI feature branch builds a day! "
>
> *Andrew Knight*
> *Managing Director, Goldman Sachs*

Goldman Sachs solves clients' engineering challenges

Goldman Sachs is achieving what was previously assumed to be impossible. With the help of GitLab, the engineering team is now self-serving thousands of daily builds and dozens of teams are moving to production on a daily basis. Goldman Sachs empowered users with a strategic development tool and removed barriers around tool confusion and communication to speed up the delivery cycle. The Goldman Sachs engineering group is part of the technology division and global strategy groups, which are the critical center of the financial service provider's business. They solve the most challenging and pressing engineering problems for Goldman Sachs clients. The group builds massively scalable software and systems, architects low-latency infrastructure solutions, proactively guards against cyber threats, and leverages machine learning alongside financial engineering to

Increasing build speed by demolishing toolchain complexity

The firm had built its own toolchain but was looking for a solution to increase concurrent development. They wanted a modern toolset for managing code that developers coming into the firm would likely already be familiar with; this led to an evaluation of GitLab and other git-based vendor products. From their discovery process, they decided GitLab had the best CI/CD infrastructure to meet their needs. Initial users reported that it was easy to use and offered a complete end-to-end platform for software development, allowing them to replace their current toolchain and increase speed and coordination in the process.

> "We're bringing into the firm a platform that our engineers actually want to use – which helps drive adoption across multiple teams and increase productivity without having to 'force' anyone to adopt it. This is really helping to create an ecosystem where our end users are actively helping us drive towards our strategic goals - more releases, better controls, better software.
>
> *George Grant*
> *VP Technology Fellow, Goldman Sachs*

GitLab increases Goldman Sachs' build velocity

GitLab is used as a complete ecosystem for development, source code control and reviews, builds, testing, QA, and production deployments. All the new strategic pieces of Goldman Sachs' software development platforms are tied into GitLab.

GitLab is helping the business-line engineering teams move faster to develop and improve their software and deliver for clients. One of the firm's most important projects has moved from a release cycle of once every 1-2 weeks to once every few minutes because of GitLab.

GitLab provided them a single application to roll out DevOps to the thousands of users at the bank. The ease of people only having to learn one application accelerated their adoption time. They were concerned that multiple tools, like most companies use, would be confusing, difficult to maintain and would deter adoption.

1000+
CI feature branch builds a day by some teams

52k
test cases across 11k test classes

1500+
adopters in the first two weeks

Dozens of teams pushing to production in less than 24 hours

The engineering group at Goldman Sachs is achieving this increased efficiency and speed by collaborating and connecting on a new level. They are seeing dozens of teams pushing to production in less than 24 hours. By tying together all the different parts of the development lifecycle into one consistent ecosystem, GitLab has helped developers work more effectively. All the different parts of what they need to do can be brought together under a single umbrella to be more efficient.

The team is also using GitLab as a means of moving teams to more strategic infrastructure which supports containers, as well as other strategic initiatives that are only offered on the new platform. This really helps make sure that the group is focusing efforts to use the latest technologies in the right places, and not just retrofit to the legacy infrastructure. GitLab also works well with Kubernetes out of the box which simplified their process.

All information and persons involved in case study are accurate at the time of publication.

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