Goldman Sachs

Global Investment Research (GIR)

Our Journey to the Cloud

Who we are

The Global Investment Research (GIR) division delivers client-focused research in the equity, fixed income, currency and commodities markets. GIR analysts help the firm's investing clients achieve superior returns through differentiated investment insights and ideas.

What we do

GIR Engineers build and operate the digital platforms that support GIR analysts and clients. With our technology, the analysts are able to take an idea, support it with financial data, and broadly distribute Research globally to all clients internal and external to Goldman Sachs. GIR covers markets operating around the world and requires our platform to operate 24x7.

Moving to the Public Cloud

Key business drivers for migrating to the cloud include high availability and performance and the ability to extend certain Research to non-traditional consumers, including the public. A strong culture of experimentation allowed us to break barriers and achieve a single click deployment with immutable infrastructure and security at the center of the design. We successfully migrated all our core capabilities of our main Research portal. Explore our publically available Research, fully hosted on AWS, at **GSPublishing.com**.

Design Principles	AWS Readiness	Operational Excellence
▪ Leverage cloud-native capabilities and managed services ▪ Hybrid migration approach ▪ Fail-forward strategy	▪ Adopt Infrastructure as Code ▪ Implement 1-click deployments ▪ Build security into the design ▪ Adopt SRE principles	▪ Zero Production Access Approach ▪ Blue/Green deployments ▪ Regular environment re-paving ▪ Application & Security Monitoring

Developing for AWS

Moving to the cloud required a paradigm shift in the way we develop software holistically; thinking about the infrastructure, network, security, operational support and performance. By taking a hybrid approach, it was paramount to maintain one code base and design the architecture thinking AWS first to leverage cloud native capabilities and managed services when possible.

AWS re:Invent 2019 – Tale of two cities: Goldman Sachs' hybrid migration approach

Watch the replay to learn more about how Goldman Sachs' Global Investment Research division re-architected its critical research platform to become a cloud-native application. Goldman Sachs rapidly scaled its use of containers, changed its culture to embrace experimentation and fast failure, and adopted DevOps capabilities, including infrastructure as code, canary deployment, and zero-production access.

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