Grid Dynamics Solutions

Analytics and Machine Learning Platforms in AWS
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Thought Starters: Analytics and MLOps

- Translate data into business value
- Cut costs in operational and maintenance areas
- Capture substantial value from improved efficiency
- Uncover new revenue and growth opportunities

Some of our clients in the area of data engineering and MLOps

- Apple
- H
- Inspire Trust
- Dell
- pepsi
- Jabil
- Kohls
- Nike
Solutions: Analytics Platforms and MLOps

We build AWS-based data platforms and ML platforms for leading technology, retail, manufacturing, and finance companies.

**Data Platforms**
We accelerate the provision of big data platforms in AWS that include data processing, quality control, governance, and self-service analytics capabilities.

**Data Cloud Migration**
We accelerate the migration of legacy on-premise data solutions such as Teradata to public clouds, transforming technology and business processes, and drastically lowering costs.

**Data Quality and Governance**
We provide data quality control services that use machine learning and rule-based checks to ensure data quality and consistency for optimized analytics and business processes.

**ML Platforms**
We accelerate the provision of enterprise-grade ML platforms and MLOps processes that support feature management model development, versioning, monitoring, and serving.

**Customer 360 Platforms**
We help to develop end-to-end Customer 360 and MarTech strategies, extend data platforms with marketing-specific features, and setup customer data management processes.

**IoT Platforms**
We create specialized data and ML platforms that use cloud-native IoT services to collect data from machines, monitor anomalies, and deploy ML models on the edge.
Our Technologies

At Grid Dynamics, we created a strong lineup of starter kits that help to significantly accelerate the delivery of typical projects and reduce time to market. These starter kits are developed in close collaboration with AWS.

Analytics Platform

We provide starter kits for rapid provisioning of scalable data analytics platforms in AWS. You can deploy a preconfigured cloud-native platform that includes the following services:

- Data ingestion and processing
- Data pipeline orchestrations
- Data quality control
- Data governance
- Data security and access control

ML Platform

Our starter kit for the development of ML platforms combines cloud-native services and open source components to enable end-to-end AI productization. You can provision a preconfigured platform with the following capabilities:

- Feature store
- Model development workbench
- Model repository
- Model serving
- Experiment tracking
Analytics Platform in AWS: Reference Architecture

Our Analytics Platform Starter Kit for AWS is a culmination of years of experience that enables rapid provisioning of an AWS-native analytics platform and implementation of data pipelines at scale. The pre-integrated, battle-tested starter kit is designed to drastically reduce time-to-market, improve data accessibility and quality, increase speed-to-insights, and achieve significant ROI. You can build a production-ready, modern analytics platform within weeks on AWS cloud.
ML Platform in AWS: Reference Architecture

Efficiently scale machine learning efforts in the enterprise while adopting MLOps and increasing the quality of insights on an AWS-native ML Platform with our ML Platform Starter Kit for AWS. You can build a production-ready, cloud-native machine learning platform that enables end-to-end AI productization within weeks on AWS cloud. The starter kit is designed to improve data accessibility and quality, increase speed-to-insights, and achieve significant ROI.
Analytics Platform for a leading electronics manufacturer

This leading electronics manufacturer operates with massive amounts of IoT data coming from facilities all around the world. Our Analytics Platform was used to aggregate several types of sensor data and enable analytics and AI use cases such as predictive maintenance.

![Platform](image)

**Outcomes**

- The platform was developed and deployed to production in 5 months with several business use cases.
- The platform provides unified access to the data with easy onboarding for engineering and business users.
- The platform enabled multiple AI/ML use cases.

![ML Platform](image)
Analytics Platform for a leading apparel company

This leading apparel company interacts with millions of customers worldwide through digital channels. The company was looking to consolidate stock and shipment data into a single dashboard for a specific region.

Grid Dynamics was engaged to build a data platform along with data reporting and visualization. Dashboards were used by multiple teams to track fulfillment and shipment status.

Outcomes

- The solution enabled immediate visibility of fulfilment and shipment status, with the following features:
  - Data platform with pluggable data sources;
  - Infrastructure-as-a-code;
  - Near real-time dashboards with stock and shipment information.

<table>
<thead>
<tr>
<th>10M daily updates</th>
<th>US &amp; Europe regions</th>
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2 months from the initial analysis to production

US & Europe regions

10M daily updates
ML Platform for a leading insurance company

This major US insurance company was looking for a partner with which to start a cloud journey.

The company decided to migrate their data platform to AWS cloud and build MLOps services on top of it.

Grid Dynamics was engaged to build a new generation data platform and integrate it with ML capabilities.

<table>
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<th>50M customer profiles</th>
<th>30+ ML use cases</th>
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ML models
batch and real-time

Outcomes

- Grid Dynamics helped the company migrate part of the infrastructure and services to AWS.
- We developed a data platform with MLOps capabilities.
- The applications were built from scratch according to modern practices and standards.

cloud infrastructure
GDPR/CCPA compliance implemented
Engage with Grid Dynamics

1. Our team of data experts work with you to define a corporate data strategy and create roadmaps for cloud data migration, data governance, or data monetization.

2. We work with you to define an optimal engagement model that can include both your and Grid Dynamics teams. We leverage our starter kits built using open source and cloud-native components to accelerate the implementation.

3. We deploy cross-functional teams with proper domain/technology leadership to execute projects from the roadmaps and deliver solutions end-to-end. Our teams usually work with client’s stakeholders and product owners in a co-innovation model.

4. We focus on iterative execution of the roadmaps to deliver business value in short phases, but also continuously refine the strategy and come up with improvement proposals.

5. The co-innovation approach helps you to establish a strong technology culture in your organization, efficiently manage the roadmaps, and scale your data capabilities.
About Grid Dynamics

Grid Dynamics is a global digital engineering company that co-innovates with the most respected brands in the world to solve complex problems, optimize business operations, and better serve customers. Driven by business impact and agility, we create innovative, end-to-end solutions in digital commerce, AI, data, and cloud to help clients grow.

Headquartered in Silicon Valley, with delivery centers located throughout the globe, Grid Dynamics is known for architecting revolutionary digital technology platforms for 7 of the 25 largest retailers in the US and 3 of the 10 largest consumer goods companies in the world, as well as leading brands in the digital commerce, manufacturing, finance, healthcare, and high tech sectors.

Our secret sauce? We hire the top 10% of global engineering talent and employ our extensive expertise in emerging technology, lean software development practices, a high-performance product and agile delivery culture, and strategic partnerships with leading technology service providers like Google, Amazon, and Microsoft.

In 2019, Forrester named Grid Dynamics a leader among midsize agile development service providers. In 2020, Grid Dynamics went public and is trading on the NASDAQ under the GDYN ticker.
About Grid Dynamics

Key facts

- 13 countries across North America, Europe, and Asia
- 3,800 employees in Q3 2022
- Forrester Leader Midsize Agile Software Development Service Provider Q2 2019
- Proprietary starter kits developed in collaboration with AWS and other partners

Areas of expertise

- **Experience engineering**
  Web | Mobile | AR/VR

- **Data Science and AI**
  Search | Personalization | Supply chain | IoT

- **Platform engineering**
  Microservices | MACH | Composable

- **Data engineering**
  Big data | Streaming | MLOps

- **Cloud and DevOps**
  CICD | AIOps | SRE | QE

Clients

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<tr>
<th>apple</th>
<th>google</th>
<th>nike</th>
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<tr>
<td>align</td>
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