



MARCH 5, 2024

A photograph of a modern, multi-story office building with a glass facade. The word "EQUIFAX" is prominently displayed in large, red, capital letters on the upper portion of the building's exterior. The sky is overcast with white clouds.

## CUSTOMER CASE STUDY: EQUIFAX

How Equifax's cloud transformation set up AI, data strategies

BY LARRY DIGNAN, CONSTELLATION INSIGHTS

**E**quifax in 2024 will decommission mainframes and data centers in North America as it largely completes a cloud transformation that dates back to 2018. Now Equifax CEO Mark Begor is looking for more product velocity, artificial intelligence (AI) capabilities, and competitive advantage.

The Atlanta-based giant is best known as a credit reporting agency but has a portfolio of products via an insights engine powered by multiple data stores and financial, mortgage, commercial and residential real estate, auto, healthcare, government, and employer services—to name a few.

Begor, speaking on Equifax's fourth quarter earnings call, noted that cloud-enabled AI using a combination of proprietary models and Google Cloud's Vertex AI will enable the new Equifax.

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- Mark Begor  
Equifax CEO

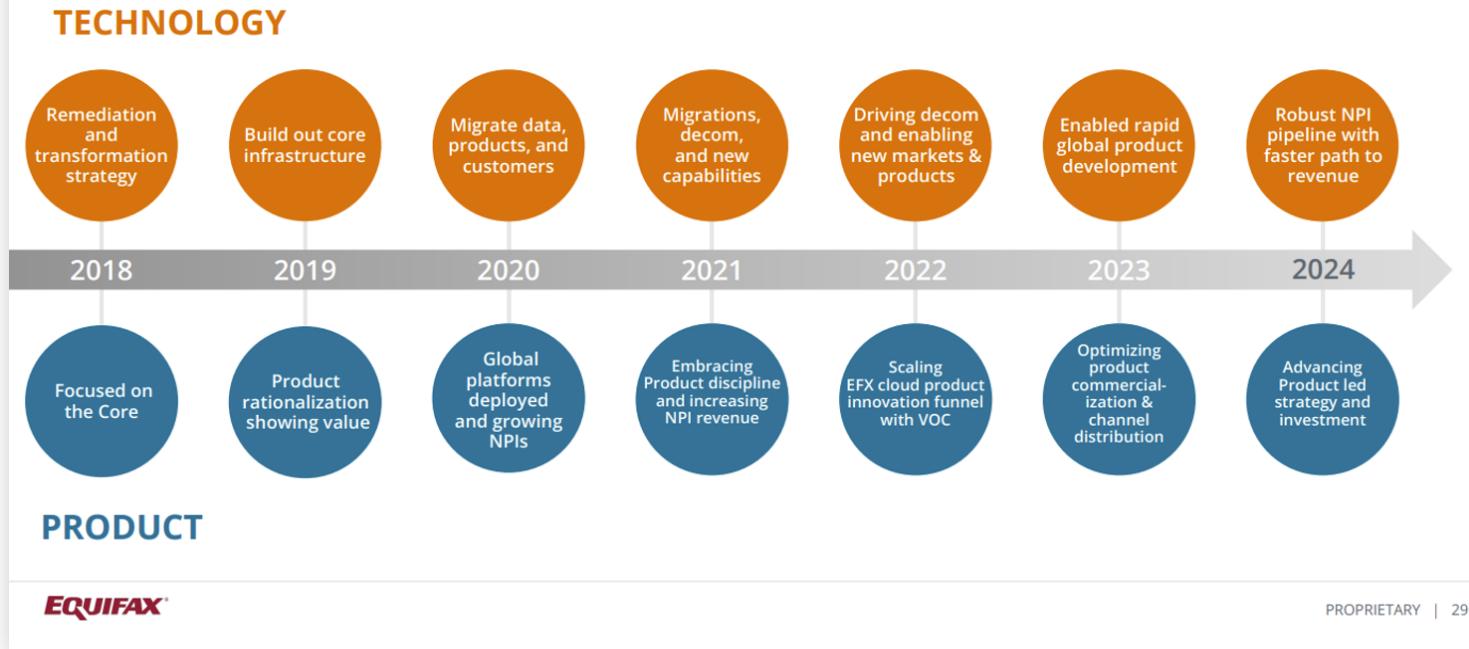
a competitive advantage to Equifax for years to come," said Begor.

**E**quifax's journey highlights how cloud migration, digital transformation, and data architecture are required to move AI efforts ahead. Equifax has also invested in transformation because its mortgage business has suffered due to rising interest rates. Fewer refinances and home mortgages mean fewer Equifax data services.

**Among the key milestones for Equifax in 2023:**

- 70% of Equifax revenue is in the new Equifax Cloud.

# EFX Transformation to Cloud Native



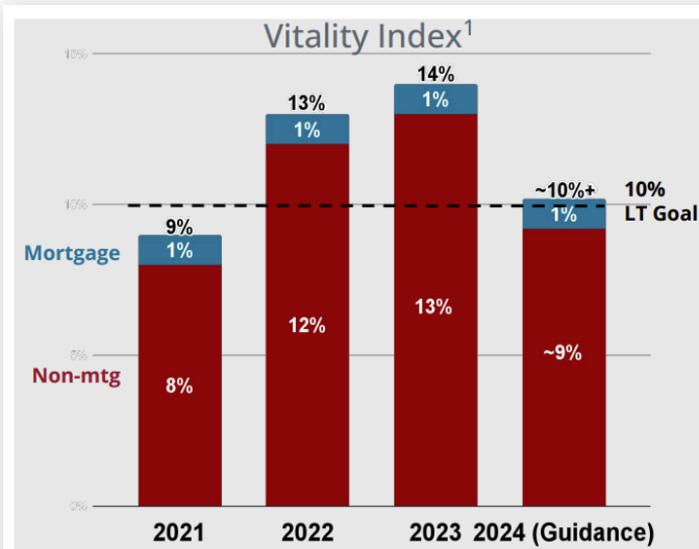
- Equifax decommissioned seven data centers and migrated 37,000 customers to Equifax Cloud.
- The company saved more than its targeted \$210 million goal.

And in 2024 Equifax plans on the following:

- Completing the North America move to the cloud and migrating all customers to Equifax Cloud
- Decommissioning mainframes as well as the remaining North American data centers completely

- Progressing with transformation efforts in Europe and Latin America
- Saving an incremental \$90 million in 2024
- Having about 90% of revenue in Equifax Cloud, with the majority of new models and scores being built with Equifax AI

**B**egor noted that the cloud-enabled Equifax has launched more than 100 new products a year for the last four years. In addition, the average revenue per new product is up nearly 50% since 2021.



#### 4Q Product Roll-Outs

- **Auto Gold (24 Months) (EWS)** - Optimized credit worthiness product for automotive lenders/dealers
- **SSV Date Range Enhancement API (One Call) (EWS)** - Medicaid, SNAP, and TANF eligibility product optimized for state government agencies through a single API
- **AMP Insights (USIS)** - Apartment complex risk score to quantify risk of multifamily complexes
- **Luminate - FraudCheck Transformation (INTL - ANZ)** - Fraud risk management solution utilizing contributed consortium intelligence
- **Open Banking ID (INTL - UK)** - Leverages Strong Customer Authentication (SCA) Banking standards combined with Equifax Data to deliver a secure, real-time customer anti-impersonation assessment



~90% of 4Q23 new product revenue from Non-mortgage NPIs

**EQUIFAX**

1. Vitality index is percentage of revenue in a given year derived from new product releases over the prior three years and the current year.

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For 2023 Equifax reported net income of \$545.3 million on revenue of \$5.26 billion, up from \$5.12 billion in 2022. The company's divisions are Workforce Solutions, Online Information Solutions, Mortgage Solutions, and Financial Marketing Services.

## EQUIFAX CLOUD'S JOURNEY

In 2021 Equifax outlined Equifax Cloud, a cloud-native architecture designed for highly regulated data workloads. The launch of Equifax Cloud took \$1.5 billion in investment.

Equifax Cloud was built primarily on Google Cloud, but Equifax, in its annual

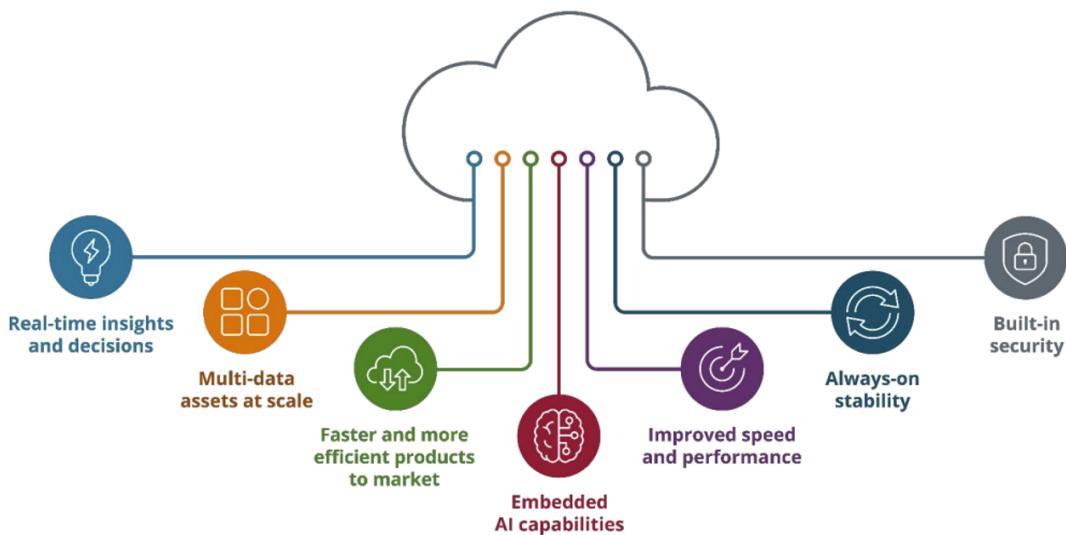
report, does cite Amazon Web Services and other vendors used for outsourcing.

According to case studies [from Google Cloud](#) and AWS, Equifax uses Google for its cloud [data architecture](#) and [AWS to host mission-critical applications](#).

Equifax said that it built Equifax Cloud because it needed to build something once and then deploy across all of its markets with customizations that required little engineering.

Manish Limaye, SVP, USIS chief architect, and head of data engineering at Equifax, [said in an interview at Constellation Research's Connected Enterprise 2023](#) that the Equifax decision to build on Google

## The Equifax Cloud™



**EQUIFAX**

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Cloud had a lot to do with machine learning and AI expertise.

Limaye, a Constellation Research Business Transformation 150 member, said:

**“Equifax is deep into statistical modeling. All you knew was going to be big. We were one of the leaders in the explainable AI space. When we partnered with Google, it was more than just what I’d call run-of-the-mill cloud transformation. We wanted a deep partnership with Google beyond Google Cloud into data engineering. We partner with them. We learn from them. They learn from us, because we have the most complex data. There’s also the value and security of the data.”**

The company's cloud transformation also had a lot to do with security. Equifax has argued that a distributed cloud architecture reduces the attack surface.

In September 2017, Equifax announced a data breach that had exposed 147 million people. The company settled with various regulators for \$425 million to help people affected by the breach.

Limay said Equifax vowed to be a security leader after its data breach.

“Our security commitment really meant rethinking and reimagining how we look at securing our data, given the sensitivity of it. We came up with a proper security control framework and paired it with our cloud-native capability. There is

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*-Manish Limaye, SVP, USIS chief architect, and head of data engineering at Equifax*



an ability to destroy and rebuild data at any time. When you pair security frameworks and cloud together, you walk away with a very comprehensive security framework. That control framework gets translated into a series of technical requirements. It's a very rigorous process.”

Equifax CFO John Gamble said the company will gain operating leverage in the second half of 2024, due to the cloud migration.

“In 2024 cost savings we will generate from decommissioning of North American infrastructure in the second half of '23 will exceed the redundant system and migration costs we are

incurring, generating about 30 basis points of margin benefit,” said Gamble.

Equifax’s cloud transformation is also evaluated based on new product releases. Equifax tracks a Vitality index, which is a percentage of revenue in any given year derived from new product releases over the previous three years and the current year.

## **EQUIFAX’S MULTI-CLOUD APPROACH RESHUFFLES VENDORS**

**A**s Equifax’s cloud transformation evolved, so did its contracts and core vendors.

Starting in its 2019 annual report, Equifax began showing cloud payments to Google Cloud and AWS. Its 2018 annual report focused on payments to IBM, which it cited as a key vendor.

Equifax noted that its cloud transformation was also a risk. The company said in its 2019 annual report filed with the Securities and Exchange Commission:

**“We are transitioning and migrating our data systems from traditional data centers to cloud-based platforms. This initiative will place significant strain on our management, personnel, operations, systems, technical performance, and financial resources and internal financial control and reporting function. In addition, many of our existing personnel do not have experience with native cloud-based technologies, and, as a result, we have hired and will continue to hire personnel with such experience. This effort will be time-consuming and costly.”**

functions and to provide certain other administrative and operational services.” Equifax said it had paid IBM \$49 million in 2018, \$40 million in 2017, and \$45 million in 2016.

**2019:** Equifax added Google and Amazon Web Services as core vendors along with IBM and Tata Consultancy Services. Equifax’s future minimum contractual obligation to its technology vendors at this point was \$296 million. IBM was paid \$52 million in 2019. Equifax noted that its payments to technology vendors could vary based on the volume of data processed and “significant new technologies.”

The company said it paid Google \$14 million in 2019, up from \$7 million in 2018. Payments to AWS were not disclosed.

**2020:** Equifax had agreements with Google, AWS, IBM, Tata Consultancy Services, and others for portions of the functions outlined in previous years. Equifax’s future minimum contractual obligation to its technology vendors “was about \$318 million at the start of 2021.”

**H**ere’s the breakdown of Equifax’s vendor roster from 2018 to 2023:

**2018:** Equifax said that it had separate agreements with IBM, Tata Consultancy Services, Fidelity Information Services, and others to “to outsource portions of our computer data processing operations, applications development, business continuity and recovery services, help desk service and desktop support functions, operation of our voice and data networks, maintenance and related

Equifax outsourced mainframe and midrange operations, help desk services, desktop support, and network operations to IBM in various regions. IBM was paid \$50 million in 2020. By this time, Google had started gaining wallet share. In 2020 Google was paid \$29 million, more than double its 2019 payment.

**2021:** Equifax again cited Google, AWS, IBM, and Tata Consultancy Services as core vendors, with a remaining aggregate minimum contractual obligation of \$902.4 million going into 2022.

Of that sum, the minimum contractual obligation to Google was \$520 million.

[In 2021 Google was paid \\$62 million and IBM was paid \\$51 million.](#)

**2022:** Equifax's vendor lineup changed in 2022. Including Google Cloud, AWS, UST Global, Kyndryl (formerly a part of IBM), and others, Equifax's future minimum contractual obligation at the start of 2023 was \$948 million. Google and AWS accounted for the majority of that sum.

[In its 2022 annual report](#), Equifax disclosed that its future minimum contractual obligation to Google Cloud was \$440 million, with no individual year's minimum to exceed approximately \$120 million. In 2022 Equifax paid Google \$152 million, up from \$62 million in 2021.

For the first time in a regulatory report, Equifax outlined its obligations to AWS for hosting mission-critical applications. Equifax's future minimum contractual obligation to AWS was \$222 million, with no minimum to exceed about \$52 million. Equifax paid AWS \$74 million in 2022 and added that it had paid AWS \$58 million in 2021 and \$43 million in 2020.

**2023:** Equifax cited agreements with Google, AWS, UST Global, and Kyndryl with an [aggregate minimum contractual obligation of \\$1.4 billion as of December 31, 2023](#). The minimum contractual obligation to Google for the remaining term was \$1 billion, with no individual year to exceed \$228 million. Google was paid \$171 million in 2023, up from \$152 million in 2022. AWS's future minimum

contractual obligation was \$173 million for the remaining term, with no individual year exceeding \$52 million. AWS was paid \$52 million in 2023, down from \$74 million in 2022.

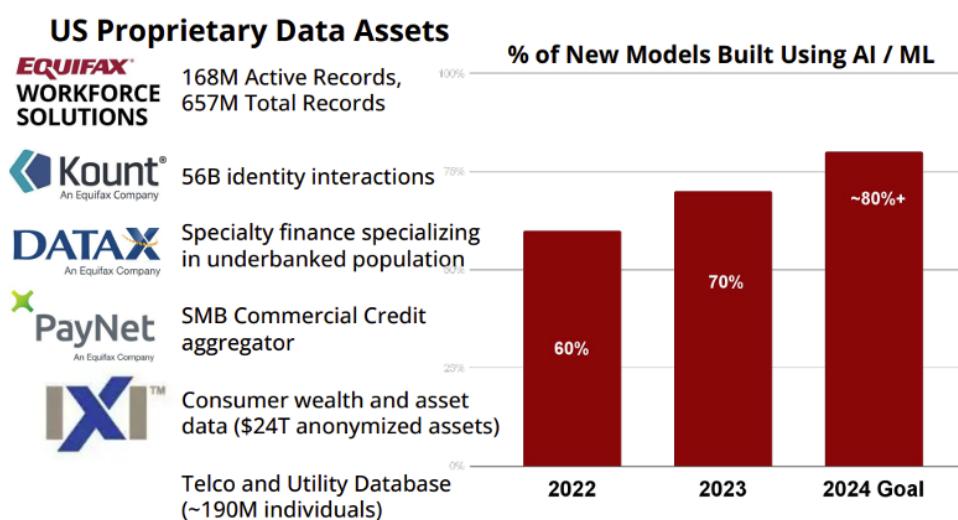
## FOCUSING ON EQUIFAX AI

With Equifax's cloud transformation mostly complete, Begor said, the company is focusing on Equifax (EFX) AI, which leverages the company's internal data, proprietary data sets, and models from its Ignite platform as well as Google Cloud Vertex AI.

"Our proprietary data at scale and our single data fabric leveraging our new EFX Cloud give us significant advantages in using AI to build more predictive multidata models, scores, and products. Our EFX AI is enabled by our explainable AI solutions that leverage our Ignite platform and our Google Vertex capabilities."

Begor added: "Our investments in AI are generating results. To date Equifax has received over 90 approved AI patents supporting areas such as our proprietary AI NeuroDecision Technology, or NDT, an explainable AI

## EFX accelerating AI capabilities... industry leading proprietary data, EFX Cloud... driving innovation



### Proven Results

- ✓ EFX Cloud w/ Single Data Fabric... Google Vertex, Ignite
- ✓ Leader in explainable AI... 90+ approved patents
- ✓ AI / ML accelerates value of proprietary data... creates improved predictive performance... translates to improved customer outcomes
- ✓ 70% of new EFX models developed using AI / ML in 2023... ~80%+ in 2024
- ✓ NPI... OneScore for Consumer scores 20% more consumers

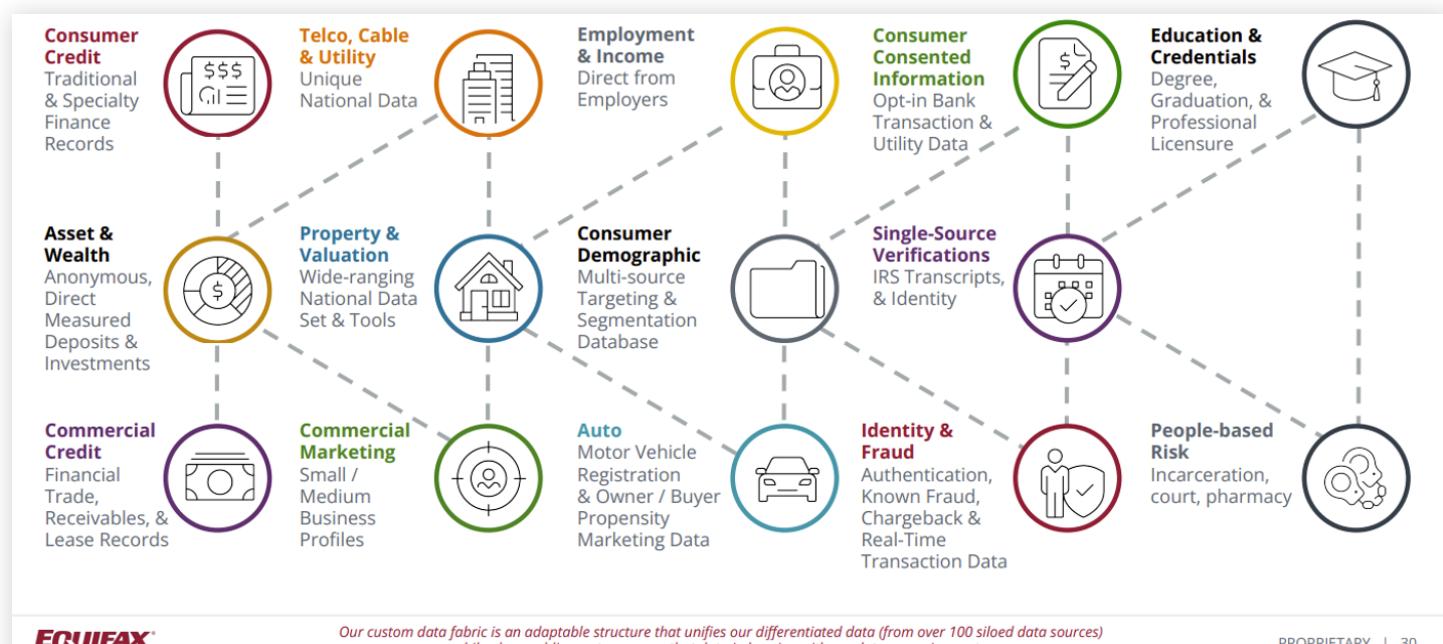
90+ approved AI patents supporting NDT, explainable AI... 130+ patents pending

with over 130 AI patents pending. We've launched new products developing at EFX AI, including Equifax OneScore for consumers, incorporating traditional credit, alternative credit, as well as cell phone utility and pay TV data, which has improved the performance of the solution to score 20% more consumers."

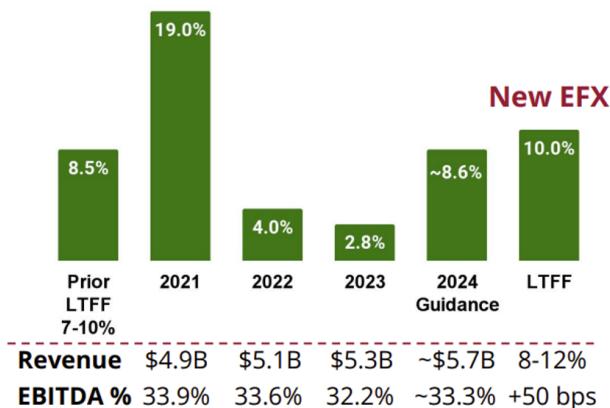
**T**he game plan is to connect more data sets with Equifax AI in order to create new combinations of data, products, and services.

Leveraging Google Cloud's Vertex AI was also an easy leap, since Equifax had built its data architecture on Google Cloud too. Equifax's data fabric, which has grown over time, is an internal data warehouse with additional capabilities.

Limaye said, "You have a variety of layers: governance, observability streaming, virtualization, catalog, and other things. We built our data platform on top of Google Cloud technology, and we standardized the pipelines at every step. When the data comes, it goes through the initial cleaning and transformation. It also gets entity resolution and linking. There is no differentiation between the operation and the warehouse. Because on the one hand, you are getting all this data, you're cleaning it up, and you're making it available for the product. We built our own data hub where we collect data for every platform, and it brings the operational data for different types of uses. We call it purpose views. You could use it for online transactions. There's also



## EFX Revenue Growth



## The New EFX

Technology	Yesterday	Today
<b>Data</b>	Legacy	Cloud-native / AI
<b>Innovation</b>	Siloed	Single Data Fabric
<b>NPI</b>	Process-driven	Agile, customer-driven
<b>EWS</b>	Sales-centric	Product-centric
<b>M&amp;A</b>	#2 BU	Largest business
<b>Security</b>	Opportunistic	Accelerated
<b>Culture</b>	Compliance	Industry-leading
	Inward-focused	Customer-centric

Faster growth, higher margins and free cash flow, higher returns



Note: 2024 projections represent midpoint of the guidance range issued on 2/8/24. Additional detail regarding LTFF projections can be found in the 2021 Investor Day presentation found on our Investor Relations website. This slide contains forward-looking information, including 2024 guidance. Actual results may differ materially from our

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typical data warehousing using Google technologies where you can do analytics and marketing on top of Google Cloud.”

With cloud savings and new AI-driven products for growth, Equifax is projecting 2024 revenue of \$5.72 billion, up 8.6% from 2023. The company expects that its margins will expand due to organic growth and cost savings from its cloud migration.

**“As we look beyond 2024, the cost benefits of completing our cloud migration as well as accelerating high variable profit revenue growth are expected to drive significant improvement in EBITDA [earnings before interest, taxes, depreciation, and amortization] margins,” said CFO Gamble.**

### Equifax: Where its cloud money goes

Equifax’s cloud spending is split between Google Cloud and AWS. Here’s how the wallet share is going.

YEAR	GOOGLE CLOUD	AWS:
2018	\$7 million	N/A
2019	\$14 million	N/A
2020	\$29 million	\$43 million
2021	\$62 million	\$58 million
2022	\$152 million	\$74 million
2023	\$171 million	\$52 million

## AUTHOR BIO

# Larry Dignan

Editor in Chief, Constellation Insights



Larry Dignan was most recently editor in chief of Celonis Media, where he sat at the intersection of media and marketing. He is the former editor in chief of ZDNet and has covered the technology industry and transformation trends for more than two decades, publishing articles in CNET, Knowledge @Wharton, WallStreetWeek.com, Interactive Week, The New York Times, and Financial Planning magazine.

He is also an adjunct professor at Temple University and on the advisory board for the Institute of Business and Information Technology at the Fox School of Business at Temple University.

# ABOUT CONSTELLATION INSIGHTS

Constellation Insights is the news and insights arm of Constellation Research, underwritten to deliver the latest in enterprise technology. Constellation Insights is led by Larry Dignan, previously editor in chief of Celonis Media and ZDNet, with decades of enterprise technology experience.

Constellation Insights' responsibilities:

- Covers the buy and sell sides of enterprise technology
- Provides a neutral lens into enterprise technology developments
- Amplifies the voices of the Constellation Research analysts and CXO thought leaders
- Tells real-world, human customer stories
- Gives voice to enterprise vendors that have been drowned out in B2B media



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