

# Cloud Stories- Q2 2023

Insights into performance of  
**AWS, MIC, GCP, Oracle Cloud**

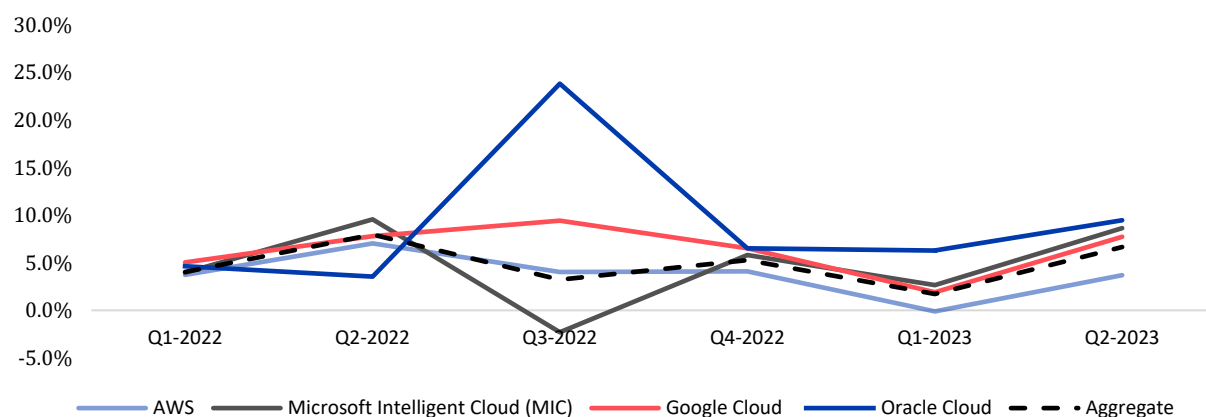


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## Key Highlights

- The collective combined cloud revenue for the four players (AWS, Microsoft, Google, and Oracle) reached USD 58.6 billion in Q2-2023 (YoY growth of ~18%), driven by growth in cloud revenue for each player.
- Cloud revenue accounted for an average of 21% percent of the total revenues of the four players, signifying the growing importance of the cloud business to the overall portfolio.
- Despite slowing revenue growth, AWS remains a leading player in the cloud computing industry. In contrast, Google Cloud has achieved significant success, achieving the highest operating income of USD 395 million in Q2-2023. This demonstrates Google Cloud's strength and competitiveness in the market during the period.
- In Q2-2023, AWS generated USD 22.1 billion in revenue, a YoY growth of 12.2% as compared to Q2- 2022. The growth rate continues to decline owing to pricing pressure and cost optimization initiatives by customers.
- Microsoft Intelligent Cloud (MIC) reported growth of 15.3% (YoY basis) in Q2-2023 to reach USD 24 billion, driven by growth in server products, Azure and other cloud services.
- Google Cloud revenue reached USD 8.0 billion in Q2-2023 (strong growth of 28.0% on YoY basis), driven by Google Cloud Platform followed by Google Workspace offerings.
- Oracle Cloud continues to witness strong growth in the global cloud market and achieved an impressive YoY growth of 53.5% to reach USD 4.4 billion in Q2-2023 (accounting for 32.1% of the overall revenue).
- Cloud providers continue to expand their presence globally to sustain competitive edge and address the growing customer demand and. For instance,
  - AWS launched AWS local zone in New Zealand and plans to further invest aggressively in India till 2030.
  - Microsoft opened new regions in Italy and Poland and further plans to expand its geographic presence.
  - Google Cloud plans to open new regions in Europe, Africa and South-East Asia.
  - Oracle Cloud opened new regions in Singapore and Serbia.

**Exhibit 1: Revenue Growth rate (QoQ) of Cloud service providers, (Q1 2022-Q2 2023)****Exhibit 2: Key Financial metrics of Cloud service providers, (Q2 2022- Q2 2023)**

Cloud Provider	Q2 2023 (USD bn)	Q1 2023 (USD bn)	Q2 2022 (USD bn)	% change YoY	% change QoQ	Cloud revenue % of total revenue
AWS	22.1	21.4	19.7	12.2%	3.7%	16.5%
Microsoft Intelligent Cloud*	24.0	22.0	20.8	15.3%	8.7%	42.7%
Google Cloud Platform	8.0	7.4	6.3	28.0%	7.7%	10.8%
Oracle Cloud	4.4	4.1	2.9	53.5%	9.5%	32.1%

\* Includes Azure and other cloud services, excluding Office 365, LinkedIn, Dynamics 365 etc

Source: Company reports, Twimbit analysis



## Cloud Infrastructure providers

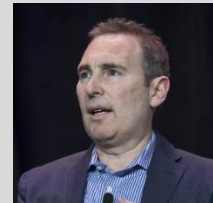
### A. Amazon Web Services (AWS)

#### Overview:

- The AWS Global Cloud Infrastructure platform offers 200+ fully featured services its data centres worldwide.
- AWS continues to strengthen its strong positioning as a dominant player for cloud offerings.
- In Q2-2023, AWS generated USD 22.1 billion in revenue, a YoY growth of 12.2% compared to Q2- 2022.
  - In Q2-2023, it contributed 16.5% to Amazon's overall revenue as compared to 16.3% in Q2-2022, showcasing its significant contribution to the group's overall revenue.
- Competitive pricing and price-sensitive customers continue to be prime challenge for AWS, thus impacting its growth.
  - Additionally, revenue growth has stagnated since last year, as customers have started shifting from cost optimisation to new workload deployment, thereby making it challenging for AWS to sustain the higher growth levels which it had in earlier days.

*"While customers have continued to optimize during the second quarter, we've started seeing more customers shift their focus toward driving innovation and bringing new workloads to the cloud."*

**- Andy Jassy, CEO, Amazon**

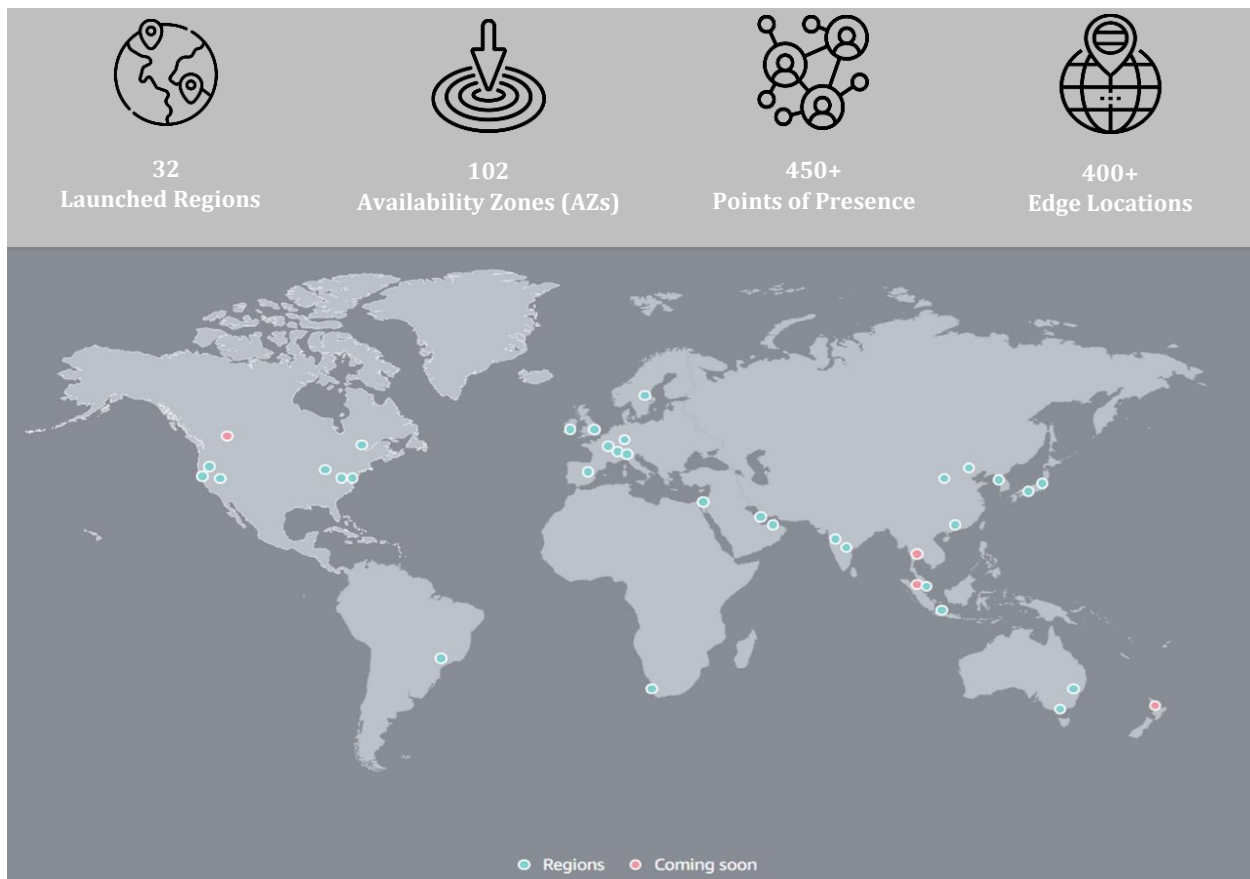


#### AWS Cloud capabilities:

- The AWS Cloud has 102 Availability Zones across 32 geographic regions worldwide. It also has plans have 12 additional Availability Zones globally and 4 AWS Regions in Canada, New Zealand, Malaysia and Thailand.
  - Asia Pacific and China boasts a total of 38 Availability Zones distributed across 12 distinct geographic Regions. Additionally, the region is served by 34 Edge Network locations and benefits from 5 Regional Edge Cache locations.
  - In Europe, the Middle East, and Africa (EMEA), there are 33 Availability Zones strategically positioned across eleven geographic Regions. Moreover, the region

- enjoys the presence of 39 Edge Network locations and 2 Regional Edge Cache locations.
- North America is supported by 25 Availability Zones strategically situated across seven geographic Regions. The region also benefits from 44 Edge Network locations and 2 Regional Edge Cache locations.
  - South America has one geographic Region, with 3 Availability Zones. It also has 4 Edge Network locations and 1 Regional Edge Cache location.
  - Globally, has 400+ Edge Locations, 35 Local Zones, 29 Wavelength Zones for ultralow latency applications.

### Exhibit 3: AWS Cloud Global capabilities



Source: [Company website](#), Twimbit analysis

- AWS continued to expand its infrastructure footprint to meet customer demand, by launching AWS Local Zones in Auckland, New Zealand, and Manila, Philippines, and an Amazon CloudFront location in Nigeria.
  - In May 2023, announced the availability of AWS Local Zones in Auckland, New Zealand.

- In May 2023, AWS unveiled plans to make a substantial investment of USD 12.7 billion in India's cloud infrastructure over the next seven years, extending until 2030. This substantial financial commitment is aimed at addressing the escalating demand from AWS customers in the region.
  - It has already invested ~USD 3.7 billion in India during 2016- 2022.




### Product Announcements:

AWS remains steadfast in fortifying its technologies and capabilities, which serve as an essential tool for customers of various scales, enabling them to leverage Generative AI, optimize productivity, and bolster their security stance.

Period	Description
June 2023	<ul style="list-style-type: none"> <li>• Introduced the AWS Generative AI Innovation Centre, an initiative designed to empower customers in constructing and implementing Generative AI solutions.               <ul style="list-style-type: none"> <li>– This program entails a significant investment of USD 100 million and is geared towards fostering collaboration between AWS's machine learning (ML) and AI experts and its customer base and partners globally.</li> <li>– The ultimate objective is to facilitate the seamless development and deployment of cutting-edge generative AI solutions across various industries.</li> </ul> </li> </ul>
June 2023	<ul style="list-style-type: none"> <li>• Introduced AWS AppFabric, a no-code service, to enable organisations enhance their investments in SaaS applications with improved security, management, and productivity features.</li> </ul>
May 2023	<ul style="list-style-type: none"> <li>• Introduced Amazon Security Lake, a service, which facilitates automatic centralization of organisation's data across their AWS environment, SaaS providers, on-premises environments, and cloud sources into a purpose-built data lake. This would provide clients quicker and simplified security data management across hybrid and multi-cloud environments.</li> </ul>
Apr 2023	<ul style="list-style-type: none"> <li>• AWS enhanced the features of its threat detection service – Amazon Guard Duty, by introducing three new capabilities namely EKS Runtime Monitoring, GuardDuty RDS Protection and GuardDuty Lambda Protection, to enable the customers secure their Container, Database, and Serverless Workloads.</li> </ul>

Source: Company sources, Twimbit analysis

## Key Contract wins in Q2 2023

Period	Client Name	Description
June 2023	 veriff	<ul style="list-style-type: none"> <li>Veriff announced to leverage AWS's Amazon EC2 instances with the NVIDIA GPU, to protect itself from sophisticated fraud attacks and offer digital services.</li> </ul>
June 2023	 KB Kookmin Bank	<ul style="list-style-type: none"> <li>Selected AWS to empower its Star Banking super-app and company-wide digital strategy.</li> </ul>
May 2023	 experian	<ul style="list-style-type: none"> <li>Experian announced AWS as its preferred cloud provider for its information technology (IT) modernisation initiative, whereby Experian would migrate its core business operations, consumer-services products, analytics tools, and on-premises servers to AWS.</li> </ul>

Source: Company sources, Twimbit analysis

## B. Microsoft Intelligent Cloud (MIC)

### Overview:

- MIC reported growth of 15.3% (YoY basis) in Q2-2023 to reach USD 24 billion, driven by growth in its consumption-based service offerings like server products, Azure, and other cloud services.
- MIC segment continues to drive the overall revenue for the company and contributed 42.7% of the overall revenue in Q2-2023 (growth of 2.6 p.p. on YoY basis)
- Microsoft has strategically leveraged its extensive partnership with OpenAI to capitalise on the renewed enthusiasm surrounding AI. This strategic move comes in the wake of OpenAI's ChatGPT chatbot launch in November 2022, presenting Microsoft with an opportune moment to further explore and expand its AI endeavors.
- Signed an agreement with GPU cloud provider CoreWeave to meet the AI requirements of its customers, including OpenAI.



*"Organizations are asking not only how – but how fast – they can apply this next generation of AI to address the biggest opportunities and challenges they face – safely and responsibly. We remain focused on leading the new AI platform shift, helping customers use the Microsoft Cloud to get the most value out of their digital spend, and driving operating leverage."*

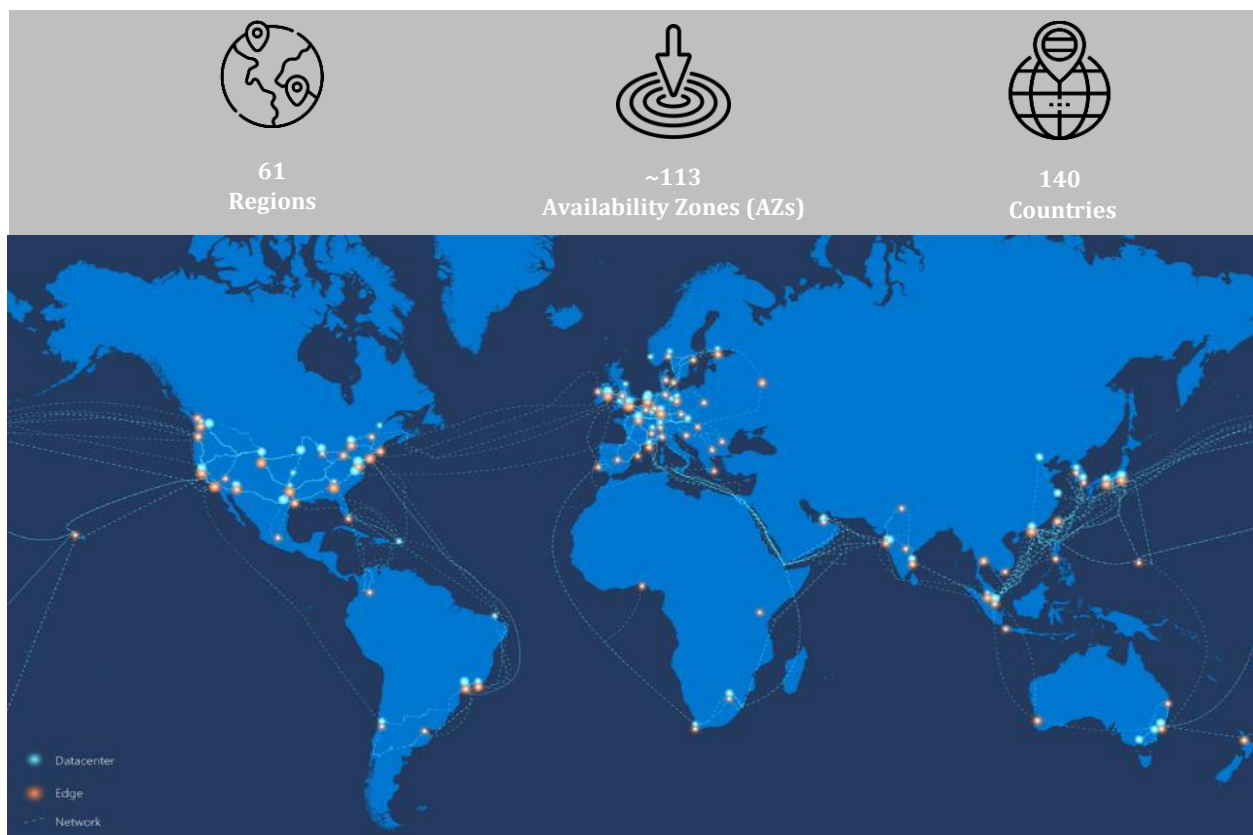
**- Satya Nadella, Chairman and CEO, Microsoft**



### Microsoft Cloud capabilities:

- MIC has presence across 61+ regions and 140 countries globally.
- Has Azure operating in the geographies United States, Brazil, Canada, , Azure Government, Australia, , China, Korea, Japan, France, Germany, Norway, Poland, Sweden, Switzerland, United Kingdom, Qatar, and United Arab Emirates.
- Plans to introduce Azure to new geographies including Chile, Mexico, India, Indonesia, Malaysia, New Zealand, Taiwan, Austria, Denmark, Greece, Italy, Spain and Israel

### Exhibit 4: Microsoft Cloud Global capabilities



Source: [Company website](#), [Twimbit analysis](#)

- In June 2023, launched its first cloud region in Italy, thereby providing organisations in Italy with access to scalable, available, and resilient cloud service.
- Earlier in April 2023, had launched its data centre region in Poland.

## C. Google Cloud

### Overview:

- Google Cloud revenue continues to strongly contribute to the overall revenue growth, with its revenue contribution to the overall revenue has consistently been increasing since 2019.
  - It accounted for 10.8% of the overall revenue in Q2-2023 (growth of 1.8 p.p. on YoY basis), as compared to ~5.0% in Q1-2019.
- Google Cloud revenue reached USD 8.0 billion in Q2-2023 (strong growth of 28.0% on YoY basis)
  - Google Cloud Platform, in conjunction with its Google Workspace offerings, played a pivotal role in driving significant growth for Google. Among the key drivers of this growth were Google Cloud's infrastructure and platform services, which emerged as the primary catalysts propelling the expansion of the Google Cloud Platform.
  - Increase in seats as well as average revenue per seat resulted in revenue growth in Google Workspace.
- Though GCP revenue growth remained strong across geographies, industries and products, however continued moderation consumption rate growth as consumers focus on optimising their spend might pose growth challenges for GCP as well.



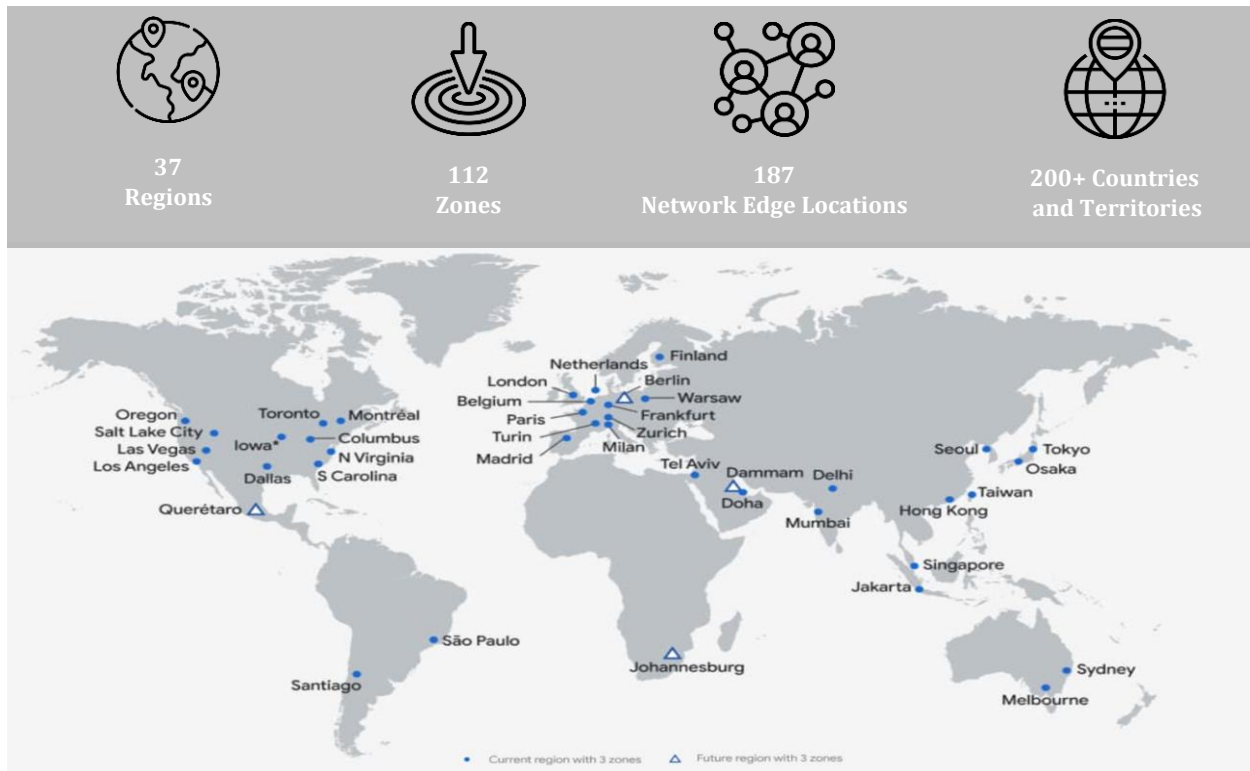
*"There's exciting momentum across our products and the company, which drove strong results this quarter. Our continued leadership in AI and our excellence in engineering. With fifteen products that each serve half a billion people, and six that serve over two billion each, we have so many opportunities to deliver on our mission".*

**- Sundar Pichai, CEO, Alphabet and Google**

### Google Cloud capabilities:

- Currently operates 37 regions with 112 Zones across 200+ countries.
- Plans to operate in new regions including Germany, Kingdom of Saudi Arabia, Mexico, Malaysia, Thailand, New Zealand, Greece, Norway, South Africa, Austria, and Sweden.

## Exhibit 5: Google Cloud Global capabilities



Source: [Company website](#), Twimbit analysis

## Key Contract wins in Q2 2023:

- According to Google, their customer base in the Generation AI (Gen AI) sector consists of over 70% of Gen AI unicorns. Notable companies among these customers include Cohere, Jasper, Typeface, and others.

Period	Client Name	Description
June 2023	<b>T Mobile</b>	<ul style="list-style-type: none"> <li>Plans to leverage Google Cloud low-latency Edge capabilities, by connecting its 5G Advanced Network Solution (ASN) product suite to Google's Distributed Cloud Edge (GDC Edge), to support applications like AR and VR.</li> </ul>
May 2023	<b>EQUINIX</b>	<ul style="list-style-type: none"> <li>Equinix announced of leveraging Google Cloud Platform (GCP) for its machine learning operations (MLOps) architecture solution.</li> </ul>

Source: Company sources, Twimbit analysis

## D. Oracle Cloud

### Overview:

- Oracle continues to witness robust growth in the global cloud market, driven by strong growth in the IaaS segment, thereby propelling Oracle's cloud ecosystem momentum.
- Oracle Cloud achieved an impressive YoY growth of 53.5% to reach USD 4.4 billion in Q2-2023 and accounted for 32.1% of the overall revenue.
- During the quarter, announced of additional services offered by Oracle Cloud Infrastructure (OCI) being approved by Defense Information Systems Agency (DISA) and FedRAMP Joint Authorization Board (JAB).
- In June 2023, it opened a New EU Sovereign Cloud, for addressing European Data Privacy and Sovereignty Requirements.

*"Oracle's revenue reached an all-time high of \$50 billion in FY23. Annual revenue growth was led by our cloud applications and infrastructure businesses which grew at a combined rate of 50% in constant currency.....Our cloud applications growth rate also accelerated in FY23. .... That bodes well for another strong year in FY24."*

**- Safra Catz, CEO, Oracle**



### Oracle Cloud Capabilities:



- Oracle offers 100+ cloud services across 42 commercial and government cloud regions in 23 countries.
  - Also, has multiple additional dedicated regions and US national security regions, to cater to the requirements of its customers.
- Strengthened its presence in South-East Asia region by opening its second cloud region in Singapore in April 2023.
  - The new region will enable it to cater to the growing demand for OCI services in the South-East Asia region and address the growing business continuity and compliance requirements.
- In May 2023, launched new European cloud region in Serbia.

## Exhibit 6: Oracle Cloud Global capabilities



Source: [Company website](#), Twimbit analysis

## Key Partnerships:

Period	Partner Name	Description
June 2023		<ul style="list-style-type: none"> <li>Partnered to generative AI services leveraging Oracle Cloud Infrastructure (OCI), to enable the companies automate business processes and improvise processes. .</li> </ul>
May 2023	 A G42 company	<ul style="list-style-type: none"> <li>Partnered for creation of Oracle Cloud Infrastructure (OCI) Dedicated Region within Injazat's data centres, to offer access to Oracle Cloud Applications and Infrastructure services, to UAE's federal government and Abu Dhabi's local government entities.</li> </ul>

Source: Company sources, Twimbit analysis



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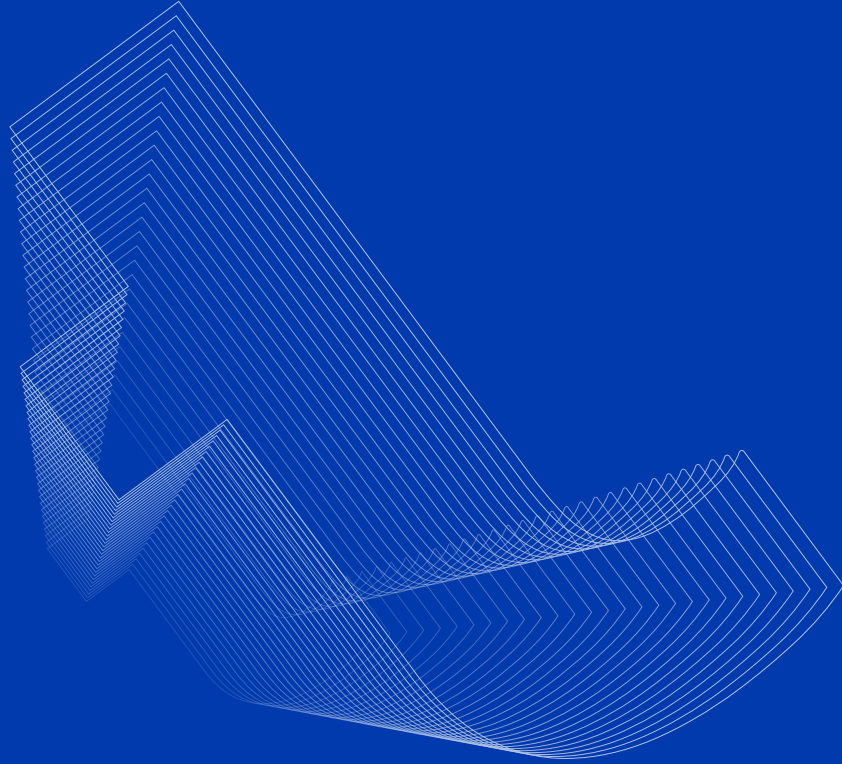
**Key Contract wins in Q2 2023:**

Period	Client Name	Description
May 2023		<ul style="list-style-type: none"><li>Selected by UAE's Etisalat (e&amp;) to leverage cloud capabilities for enhancing its cloud infrastructure and modernisation of its business applications, to support its expansion and digital transformation plans.</li></ul>

Source: Company sources, Twimbit analysis

## Research Methodology and Assumptions

- Data collection has been done basis secondary research in reference to the information provided by the Cloud provider's website and financial reports.
- The performance of the cloud service providers in Q2-2023 is indicative of their overall performance and can be used to predict future trends in the market.
- The report covers the second quarter of 2023 for each of the four cloud service providers. Notably, Oracle's fiscal year concludes in May. To align their reporting cycle with the calendar year, Q4 FY2023 is considered equivalent to Q2 CY2023.
- Revenue figures for the previous quarter may not align precisely with the corresponding figures in the previous quarterly report, primarily due to the focus on Microsoft Intelligent Cloud (MIC), which encompasses Azure and other associated services.
- In our analysis, we have focused on Google Cloud Platform (GCP), which is a part of Google's overall revenue reported under Google Cloud. Google Cloud encompasses Google Workspace, GCP, data and analytics platforms, infrastructure, collaboration tools, and other enterprise cloud services. It is worth noting that Google does not report GCP's revenue separately, but rather as part of the overall Google Cloud segment.



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