Cloud Computing: Indonesian Organisations' Gateway to Thriving in an AI-Driven Digital Economy

Cloud computing has been the driver of the digital economy. It underpins essential services like digital banking, e-commerce, ride-hailing, food delivery, travel booking, on-demand media and entertainment, navigation and mapping, email, voice and video calls, social media, and more. While cost savings are a significant advantage of cloud adoption, its true utility is in its democratisation of access to advanced analytics and enterprise AI capabilities.

Businesses and governments are turning to cloud providers like Google Cloud to access platform services for developing customised solutions to better serve customers and citizens, as well as Google Workspace's out-of-the-box, intelligent applications to uplift workforce productivity. Cloud computing serves as the gateway to a rich ecosystem of managed services that empowers organisations of all sizes to gain a new competitive edge.

With a dedicated Google Cloud region (i.e. network of in-country cloud data centers) first launched in Indonesia five years ago, Google Cloud has been playing a pivotal role in Indonesian organisations' transformation journey. Google's investments, programs, and partnerships are designed to accelerate local innovation and drive economic growth.

Over the past 5 years:

We estimate that the Google Cloud region in Indonesia has added Rp 900 trillion (US$55 billion) in economic value to Indonesia and has supported an average of 92,000 jobs every year.

Over the next 5 years:

The Google Cloud region in Indonesia is expected to add Rp 1,400 trillion (US$88 billion) in economic value to Indonesia and support an average of 240,000 jobs per year.

Rp 990 trillion (US$61 billion) in economic value will be gained by Micro, Small, and Medium Enterprises (MSMEs) and startups through their use of Google Cloud services.

Google Cloud makes Google's world-class AI models, AI model customisation tools, and AI-powered enterprise search engine capabilities easily and securely accessible to both the private and public sectors in Indonesia.

Even as AI technologies continue to evolve, organisations across the world are already identifying and implementing real-world use cases. Amongst businesses in Southeast Asia, 54% of generative AI use cases progress to the implementation phase within six months, with 71% of these implementations generating ROI within 12 months.[1]

It is often necessary for organisations to build and deploy their own customised enterprise AI applications using platforms like Vertex AI. The reason for this: while useful, pre-built consumer AI applications like Google Gemini or ChatGPT are designed to draw their responses from the public internet, and do not have access to your organisation's proprietary data or agreed workflows that allow for customised responses.

In our modelling, we identified three key areas which we believe a majority of businesses in Indonesia could benefit from: using AI to enhance customer engagement, advanced real-time translation, and data analysis. We estimate that implementing those on their own could generate Rp 293 trillion (US$18 billion) in economic value.

Over the next 5 years:

Rp 630 trillion (US$39 billion) in economic value can be gained by businesses in Indonesia through their adoption of enterprise AI platforms and tools (e.g. Vertex AI, Gemini Code Assist, Gemini in BigQuery, and Gemini in Looker).

Rp 26 trillion (US$1.6 billion) in efficiency gains and cost savings can be achieved by government agencies and state-owned enterprises in Indonesia through their adoption of enterprise AI platforms and tools (e.g. Vertex AI, Gemini Code Assist, Gemini in BigQuery, and Gemini in Looker).

1 https://services.google.com/fh/files/misc/e_conomy_sea_2024_report.pdf

Google Cloud region in Indonesia

Cloud computing is the on-demand availability of computational resources and integrated software services through secure internet channels, today often drawing on specialised hardware (e.g., Google's Axion central processing units, NVIDIA's graphics processing units, and Google's Tensor processing units). These are necessary for storing, processing, and analysing vast amounts of data—which are the fuel for modern applications, analytics, and AI—at a scale and speed previously unattainable. Cloud computing eliminates the need for organisations to make significant upfront capital investments in physical infrastructure components, undertake months-long procurement processes to acquire these components, and find the time or talent to assemble and manage these resources themselves. Cloud computing allows organisations to provision these resources within a day and its flexible consumption model means they only pay for what they use.

In 2020, Google Cloud launched its Jakarta cloud region (asia-southeast2) to enable lower latency access to Google Cloud's specialised computational resources and integrated software services. This made Google Cloud the first global hyperscaler to invest in and launch a local cloud region, years ahead of Microsoft and Amazon Web Services. Located in-country, Google Cloud's Jakarta cloud region addressed regulated industries' compliance requirements, such as data localisation. As a result, the likes of Bank Rakyat Indonesia, Indonesia's Ministry of Education, Culture, Research, and Technology (MoECRT), and Bio Farma have confidently embraced Google Cloud services to accelerate transformation. Hosted across multiple data centers, the Jakarta cloud region has three zones, providing more disaster recovery options for organisations across Asia Pacific while enabling high availability workloads.

To meet the growing demand for Google Cloud services locally, Google Cloud announced in May 2025 that it has expanded, and is continuing to expand, the computing capacity of its Jakarta cloud region. This means more specialised computational resources like servers and chips, and newer generations (i.e., higher-performance; more power-efficient) of these servers and chips being installed across its three zones.

Google Cloud is already helping Indonesian businesses to reduce IT costs and application downtime.

Indonesian organisations that have adopted Google Cloud services have benefited from reduced downtime, improved efficiency, and cost savings by eliminating the need to procure and self-maintain expensive on-premises hardware.

On average, organisations can save over 20% of costs by migrating their core systems to Google Cloud. For a large enterprise with 20,000 employees, that's equivalent to saving around Rp 220 billion (US$14 million) annually in on-premises hardware, software, and licensing costs.

On average, an organisation is able to develop and deploy new digital applications and services for its end-users 20% faster through the use of Google Cloud solutions.

On average, an organisation sees reduced unplanned application downtime by over 50% after transitioning to Google Cloud from its previous on-premises environment.

Google Cloud is actively helping organisations overcome three major bottlenecks that have been holding them back from taking full advantage of AI:
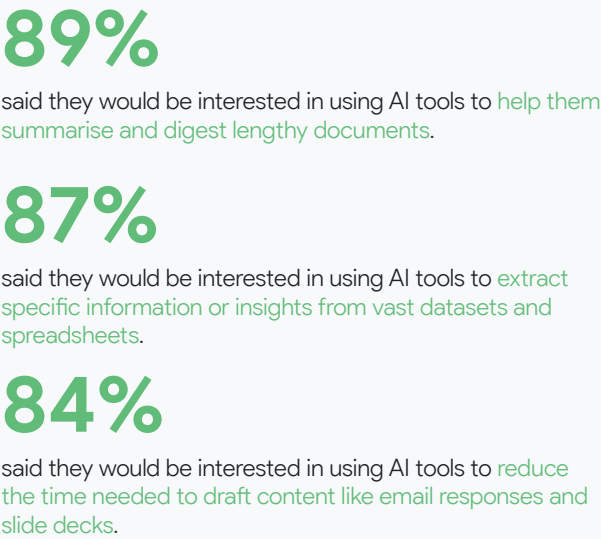
Bottleneck	How Google Cloud helps
Ensuring generative AI models produce factual and trustworthy responses	Within Vertex AI, organisations can choose from 200+ different generative AI model types and sizes (e.g. Google's Gemini and Gemma models, Anthropic's Claude models, Meta's Llama models, DeepSeek's models), and customise their model of choice by applying safety and content filters to prevent it from revealing personally identifiable information or generating inappropriate content. They can also apply "grounding," another set of customisation features that are uniquely offered by Google Cloud, to ensure the model only produces answers from data sources that the organisation chooses, trusts, and controls.
Having AI-ready datasets that models can draw on	BigQuery, Google Cloud's unified data platform, helps organisations easily, cost-effectively, and securely process and organise their structured data in tables and unstructured data like images, documents, videos, and audio files, creating a single copy of first-party data that Google Cloud terms as "enterprise truth." BigQuery's seamless integration with Vertex AI then allows organisations to build and deploy AI solutions that only draw on "enterprise truth."
Having an adequate supply of workers with the right level of digital skills	Google Cloud Skills Boost is a platform providing on-demand training and skills development in cloud computing, data analytics, AI, and cybersecurity. It offers a comprehensive catalog of courses and learning paths, including no-cost and paid subscription options. This platform allows users to learn through hands-on experience and earn skill badges and certifications.

If organisations in Indonesia can overcome these three major bottlenecks, they would accelerate generative AI adoption across the economy as a whole, generating Rp 900 trillion (US$55 billion) in additional value after five years.

Workers in Indonesia already expect cloud-native, AI-embedded collaboration and productivity tools to play a central role in their workflows.

Today, organisations that are early adopters of AI capabilities like Google Workspace with Gemini are already realising time savings, the equivalent of 10 working days per employee annually, due to generative AI and agentic AI assistance with tasks like email management, document creation, and comprehensive meeting support including note-taking, action item suggestions, and summarisation. Across the economy, this is the equivalent of generating Rp 1.7 trillion (US$106 million) of value in productivity gains annually.*

When we spoke directly to Indonesian knowledge workers, we found a broad appetite to utilise such tools even further:

89%
said they would be interested in using AI tools to help them summarise and digest lengthy documents.

87%
said they would be interested in using AI tools to extract specific information or insights from vast datasets and spreadsheets.

84%
said they would be interested in using AI tools to reduce the time needed to draft content like email responses and slide decks.

*This statement was amended on June 10, 2025, to correct the stated value from 'billion' to 'trillion'.