# The rise of artificial intelligence and the need for robust infrastructure



Artificial Intelligence (AI) has reached a significant milestone, moving beyond the classification of an emerging technology to becoming an integral component of numerous business operations worldwide. According to a report by McKinsey, over 70% of companies around the globe have either implemented AI-based technologies or are exploring their possibilities, a striking increase from just 20% in 2017. The past year has witnessed remarkable advancements in generative AI and the application of Large Language Models (LLMs), enabling enterprises to compute, predict, generate content, and analyse extensive data sets in real-time across various sectors.

Research from HubSpot and IBM indicates that AI could save employees approximately 2.5 hours daily, while leading to a potential reduction in overall business costs by nearly a third. This surge in AI adoption has created an ecosystem of partners and complementary services that extend beyond the business world. For instance, platforms like ChatGPT now offer users the ability to engage in live conversations, while Meta’s updates include an AI assistant capable of providing insights on images. Additionally, Apple is set to introduce its AI functionalities from beta, allowing users to perform tasks ranging from coding to graphic creation using portable technology.

Despite the enthusiasm surrounding AI, significant challenges remain. Surveys reveal that while ambitious AI projects are taking shape, many businesses face obstacles in realising their full return on investment (ROI). About three-quarters of enterprises have remained at initial stages of implementation, typically limited to one or two pilot projects, as reported by MIT Technology Review. Although half of the companies surveyed anticipate rolling out AI comprehensively across all functions within two years, issues with implementation often stem not from financial constraints or lack of expertise, but rather from inadequacies in their data connectivity infrastructure.

In terms of operational performance, it has become evident that underproductivity from AI integration hampers business interests. When AI systems encounter difficulties accessing and interpreting data swiftly, their ability to provide valuable insights diminishes. To harness AI's full capabilities, organisations must ensure that they have the appropriate infrastructure in place. A critical yet often overlooked factor is network interconnection, which plays an essential role in enhancing AI's operational efficiency.

One vital contributor to successful AI deployment is cloud computing. The escalating rate at which data is generated necessitates a shift from traditional on-premise data storage to cloud-based solutions, enabling more efficient data scalability and access to advanced computational power. According to the AI Infrastructure Alliance, 38% of organisations have fully migrated their AI infrastructure to the cloud, while 29% utilise a hybrid model. However, the challenges of cost and the crucial need for low latency in operations are paramount, with 28% of organisations indicating latency as their primary concern.

The importance of seamless connectivity becomes apparent during AI operation. Retraining AI models and developing new ones requires high bandwidth, while latency becomes critical for AI applications needing real-time data access—such as customer service bots and health monitoring systems. These insights underscore the necessity for organisations to avoid relying solely on public internet connections, which can introduce unpredictability in performance and security.

In response, many businesses are opting for network interconnection solutions that facilitate secure, dedicated links between their on-premise systems and cloud-based AI services. This strategy enables enhanced control over performance, security, and data routing, establishing responsive and interoperable environments that significantly benefit enterprises looking to roll out AI implementations at scale.

As AI continues to reshape business operations, the need for robust AI-ready infrastructure becomes critical. A partnership between Digital Realty, a major provider of data centre and interconnection solutions, and OVHcloud, a prominent European cloud provider, underscores this point. The integration of OVHcloud into Digital Realty's ServiceFabric platform aims to offer enterprises reliable, high-performance cloud solutions with private connectivity, enhancing the digital transformation journey and the adoption of hybrid IT strategies.

This collaboration enables organisations to bypass public internet traffic, providing solid performance and security, which is especially vital for sectors reliant on sound data management, such as finance, healthcare, and government. By emphasising secure, private connectivity to cloud offerings, the partnership fosters a conducive environment for the growth of AI-driven applications, thereby supporting innovation in a data-led economy.

Overall, as AI technologies mature and become more widespread, the emphasis on developing effective infrastructure and secure connectivity solutions will be pivotal for businesses aiming to fully leverage AI's transformative potential while minimising operational risks.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.digitalocean.com/resources/articles/artificial-intelligence-statistics> - Corroborates the widespread adoption of AI in business functions, with 72% of organizations having adopted AI in at least one business function.
2. <https://www.aiprm.com/ai-statistics/> - Supports the growth and market size of the AI industry, including the global AI market size and its projected growth.
3. <https://www.synthesia.io/post/ai-statistics> - Provides statistics on AI adoption and concerns among employees, as well as the expected growth of the AI market.
4. <https://connect.comptia.org/blog/artificial-intelligence-statistics-facts> - Details the current state of AI adoption in businesses, including the percentage of firms aggressively pursuing AI integration and the challenges faced.
5. <https://explodingtopics.com/blog/ai-statistics> - Highlights the rapid growth in AI adoption by organizations and the expected compound annual growth rate (CAGR) of the AI market.
6. <https://www.digitalocean.com/resources/articles/artificial-intelligence-statistics> - Discusses the role of cloud computing in AI infrastructure and the challenges related to data connectivity and latency.
7. <https://www.aiprm.com/ai-statistics/> - Mentions the importance of cloud computing for AI, including the migration of AI infrastructure to the cloud and hybrid models.
8. <https://connect.comptia.org/blog/artificial-intelligence-statistics-facts> - Addresses the challenges in AI implementation, such as data connectivity infrastructure and the need for secure, private connectivity.
9. <https://www.synthesia.io/post/ai-statistics> - Provides insights into the use of AI in various business functions, including marketing, content creation, and customer service.
10. <https://explodingtopics.com/blog/ai-statistics> - Highlights the critical role of network interconnection in enhancing AI's operational efficiency and the need for low latency.
11. <https://connect.comptia.org/blog/artificial-intelligence-statistics-facts> - Discusses the partnership between data centre and cloud providers to offer secure, high-performance cloud solutions with private connectivity.
12. <https://www.techradar.com/pro/from-ai-boom-to-ai-bottlenecks> - Please view link - unable to able to access data
13. <https://www.intelligentdatacentres.com/2024/11/18/digital-realty-and-ovhcloud-to-deliver-secure-high-performance-cloud-solution/> - Please view link - unable to able to access data