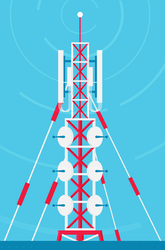
Singtel

All you need to know about 5G and edge computing

Explore how 5G technology can drive the adoption of edge computing – and how the inextricably powerful relationship between these two technologies can pave the way for increased revenue opportunities, especially in gaming, manufacturing, and retail.

5G: What are its advantages?



Lower latency

With 5G, data transmission will take less than five milliseconds, allowing organisations to control devices almost in real time.

Faster data upload and download speeds

Compared with 4G speeds, 5G speeds are predicted to have a 100x increase, with data transmission speeds of up to 10Gbps.

Enhanced capacity

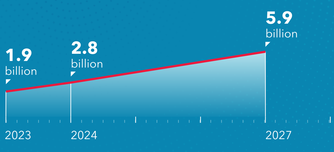
5G enables businesses to enjoy improved capacity – up to 1,000x more than 4G. 5G allows organisations to make the most of internet-of-things (IoT) deployments to grow their businesses.

Higher bandwidth

5G empowers organisations to receive and process big data at faster speeds, allowing them to turn data, analytics, and insights into action items.

5G in numbers

With 5G's higher download speeds and lower latency, it's expected to grow in worldwide subscriptions in the next several years[1]:



A look at edge computing

Edge computing refers to a range of networks and devices at or near the user. With edge computing, data processing happens closer to where it's generated or created as opposed to an on-premise and centralised data center. This allows organisations to enjoy greater data processing speeds and volumes, which could enable them to scale their businesses faster and provide better digital experiences.[2]

Why is edge computing important?

There are several key edge computing advantages that organisations big and small can take advantage of, including[3]:

Improved performance

Because data is processed where it is generated, edge-hosted applications can process data with lower latency and improved speeds and connectivity.

Enhanced privacy and data security

Edge computing processes data at the same framework as opposed to central servers, giving organisations enhanced data security and privacy protection.

Reduced operational costs

With edge computing, businesses would only need to move a smaller volume of data to cloud hosting services, allowing them to spend less.

Helps organisations meet regulatory, compliance requirements

When data is stored and managed by data centers or CSPs, it will be under the data centers or CSPs' own privacy and regulatory requirements. When it's stored, processed, and analysed in one place, it's easier to meet such requirements.

Enhanced reliability and resiliency

Edge computing enables organisations to manage, fetch, and process data with little to no limitations or impediments, regardless of internet connectivity levels.

Supports AI/ML applications

AI and ML applications, which require processing huge data volumes, require low latency and fast connectivity, which can be easily provided by edge computing.

5G and edge computing: A match made in connectivity heaven

Combining the powers of 5G technology and edge computing can vastly improve digital experiences for users and organisations alike. With this pairing, data processing will be done at significantly faster rates, with 5G's substantial network speeds and edge computing's ability to store and process data locally and not through the centralised cloud.

5G and edge computing also provides enhanced security – edge computing offers the 5G network additional protection against data breaches and cyberattacks, since it's not connected to the broader network.[4]

The symbiotic relationship between 5G and edge computing shine in the following use cases[5 6]:

Leverage connectivity and transform your business with Singtel Paragon

Accelerate your organisation's digital transformation journey with Singtel Paragon, an all-in-one platform for 5G, edge computing, cloud, and services orchestration that enables businesses to deploy their applications and services independently, securely, and within minutes.

Singtel Paragon is the one-stop platform for every digital transformation need:

- Self-service flexibility
- API library
- Infrastructure exposure
- Ecosystem marketplace
- Multi-cloud management

Transform your business with Singtel.

Contact us

References

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