

How can network connectivity enable sustainability?



As digitalisation increases in the drive towards sustainability, all elements along the value chain - data centres, devices and network services - are thrown into the spotlight as high users of energy.

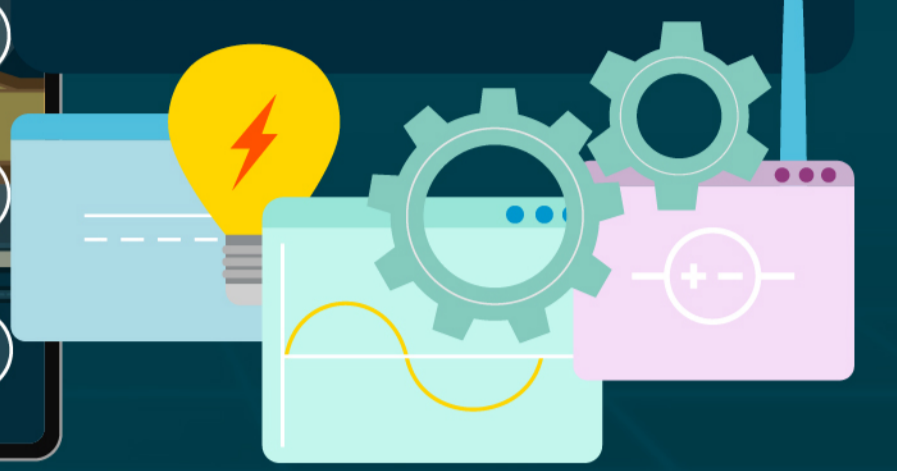
Processing, transmission and hardware production all contribute to the energy footprint making it critical to minimise the end-to-end consumption.

The AI industry's electricity consumption is projected to reach between

85-134 TW ANNUALLY BY 2027

That's the same energy use as Argentina, the Netherlands and Sweden combined.¹

With a smart application of the **ideal suite of network solutions**, companies can harness digitalisation without harming the planet.



Networking for sustainability - The state of play



Seeking efficiency is often a key priority for enterprises when deploying managed network solutions. How can this synergise with the added need to achieve corporate sustainability goals?

Network efficiencies span from energy usage, hardware reduction, operational speed and streamlined vendor partnerships. Choosing network solutions that can be enablers for corporate sustainability now has crosshatched benefits for planet and business efficiency.

Enabling sustainability at the connectivity layer

Network architecture can be leveraged at key points for greater sustainability - network service modelling, cloud computing, wireless connectivity and hardware.

Choose the right suite of services to leverage the network for greater sustainability:



Network-as-a-Service (NaaS)

By removing the need for hardware and removing the workload waiting time, NaaS gains energy efficiencies for both Scope 2 and 3 monitoring. NaaS is an integral part of Singtel CUBΣ - a unified suite of network solutions that provides insights on network utilisation, workload performance and sustainability metrics via a single sign-on digital portal.



SD-WAN

SD-WAN enables an increased shift to cloud connectivity by providing a platform between the edge, cloud and data centre. Combine with SASE for secure connectivity and the transition to cloud services can expand.



Wi-Fi 6

Enabling multiple end nodes is wireless connectivity. Next-gen Singtel Wi-Fi 6 solutions deliver increased data throughput rates as well as ultra-low and deterministic latencies.



5G

Mobile connectivity gives greater reach and potential for sustainability enabling solutions such as IoT sensors and automation. Using 5G and a single provider for these services also builds the greatest visibility for efficiency opportunities.

Advantages



Use only as little or as much of the resources as needed



Reduce carbon footprint by combining network elements



Enables sustainability building tools; IoT, automation and cloud



Powers down 5G base stations to increase efficiencies



Hardware, software and firmware are incorporated



Gain network infrastructure agility and flexibility



2.5x more energy efficient than cellular networks²



Enables a symbiotic relationship with edge computing



Streamline and manage multiple vendors



Optimise energy and resource utilisation



Increase data throughput rates



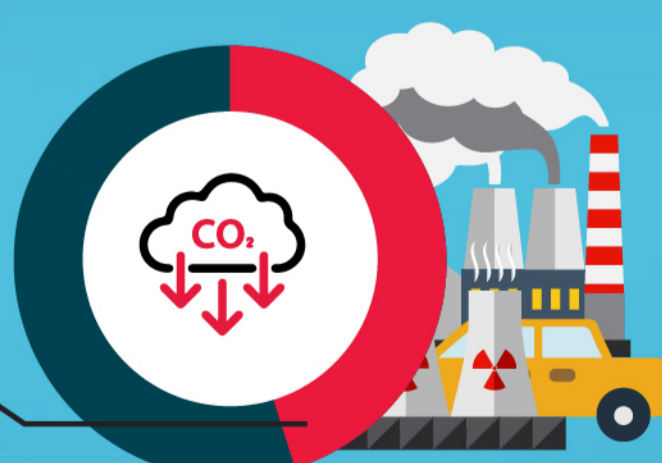
Greater data throughput for faster insights

Defend. Decarbonise. Dematerialise. Deliver Value.

Singtel's sustainability strategy will enable us to reduce

Scope 1 and 2 emissions by

55%



Scope 3 emissions by

40%

between 2023 and 2030, in turn bringing forward our Net Zero target to 2045.



We're providing energy consumption dashboards to track their usage and make more accurate emissions disclosures so that companies can reach the same ambitions.

Leverage the latest network technologies during digitalisation for baked-in sustainability:

[Contact us](#)

References

¹ New York Times, 2023, AI could soon need as much electricity as an entire country

² The Fast Mode, 2024, 6 GHz Wi-Fi is Crucial for Sustainable Connectivity