How are operators driving sustainability in their metro networks?

Metro network traffic will grow by at least 3 times by 2030, representing the largest growth area of the telco network.

With the energy crisis, sustainability has now become top of the agenda. The CEO and CFO have become routinely involved in these discussions where they weren’t before.

To meet their net zero commitments, operators must develop new strategies to reduce their Scope 1, 2 and 3 emissions.

What should operators do next?

Operators should incorporate solutions that clearly apply sustainability-by-design principles at all levels: technology, architecture, equipment. Best practice telcos have sustainability integrated within their culture, evaluation tools, metrics, KPIs to ensure ongoing systemic and sustainable change.

Some operators are already implementing ‘best practice’ initiatives, often learning from cloud practices.

While network convergence was not driven by sustainability, we have seen benefits. We want to continue – fewer layers and devices to reduce consumption and embedded carbon.

Upgrading from copper to fibre has also helped reduce fuel consumption – there are fewer breakdowns and truck tolls.

Converging networks are supported by less hardware and fewer rip-and-replace.

Sunsetting 2G/3G networks with newer and more efficient technology, architecture, equipment.

Old, legacy technologies are replaced with more efficient solutions (e.g. copper with fibre).

Upgrading with modern technology in their metro networks?

- Corporate sustainability team, Tier -1 operator, EMEA - SVP, Head of Network Architecture, Tier -1 operator, EMEA

Most operators are actively pursuing ‘common practice’ initiatives to reduce energy consumption.

- Associate Fellow, Tier -1 operator, NAM - SVP, Head of Network Architecture, Tier -1 operator, EMEA

- EVP, Infrastructure, Tier -2 operator, EMEA

Scope 1
Direct emissions from daily operations e.g. fuel combustion

Scope 2
Indirect emissions from electricity suppliers

Scope 3
Indirect emissions from other suppliers e.g. embedded in kit

For operators already adopting ‘best practice’, focusing on next practice will be key to meet net zero targets.

- Privacy Fellow, Tier 1 operator, MAF

Decentralisation will have a meaningful impact. We will need to scale to additional network locations, but will need physically connecting them in a way that allows you to easily add more line cards.

- VP, Strategy, Dynamics & Services, Tier 1 operator, MAF

Any automation for remote troubleshooting is important for saving both costs and emissions, always trying to minimise physical outreach.

- Corporate sustainability team, Tier -1 operator, EMEA - SVP, Head of Network Architecture, Tier -1 operator, EMEA

Automation
Avoiding intermittent faults, optimise operations, reduce energy intensity of HVAC and introduce sleep modes.

- Corporate sustainability team, Tier -1 operator, EMEA - SVP, Head of Network Architecture, Tier -1 operator, EMEA

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