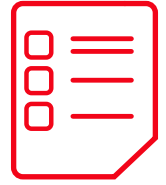




Private 5G Networks

Optimise and secure your business
on the high-speed network





Top 5G network provider in the country: A comprehensive review

In 2018, e& became the first operator in the MENA region to deploy 5G network for smartphones and fixed wireless access systems. Today, e& is covering 5G across major cities of the UAE with speeds reaching up to gigabits in DL. During Expo 2020, e& provided high mobile capacity, seamless coverage and uninterrupted 5G services for various use cases including CCTV video surveillance and TV broadcasting to the incumbent authorities. e& has won several accolades in the last 2 years, including Best 5G infrastructure award and fastest 5G speed on earth as ranked by Ookla.

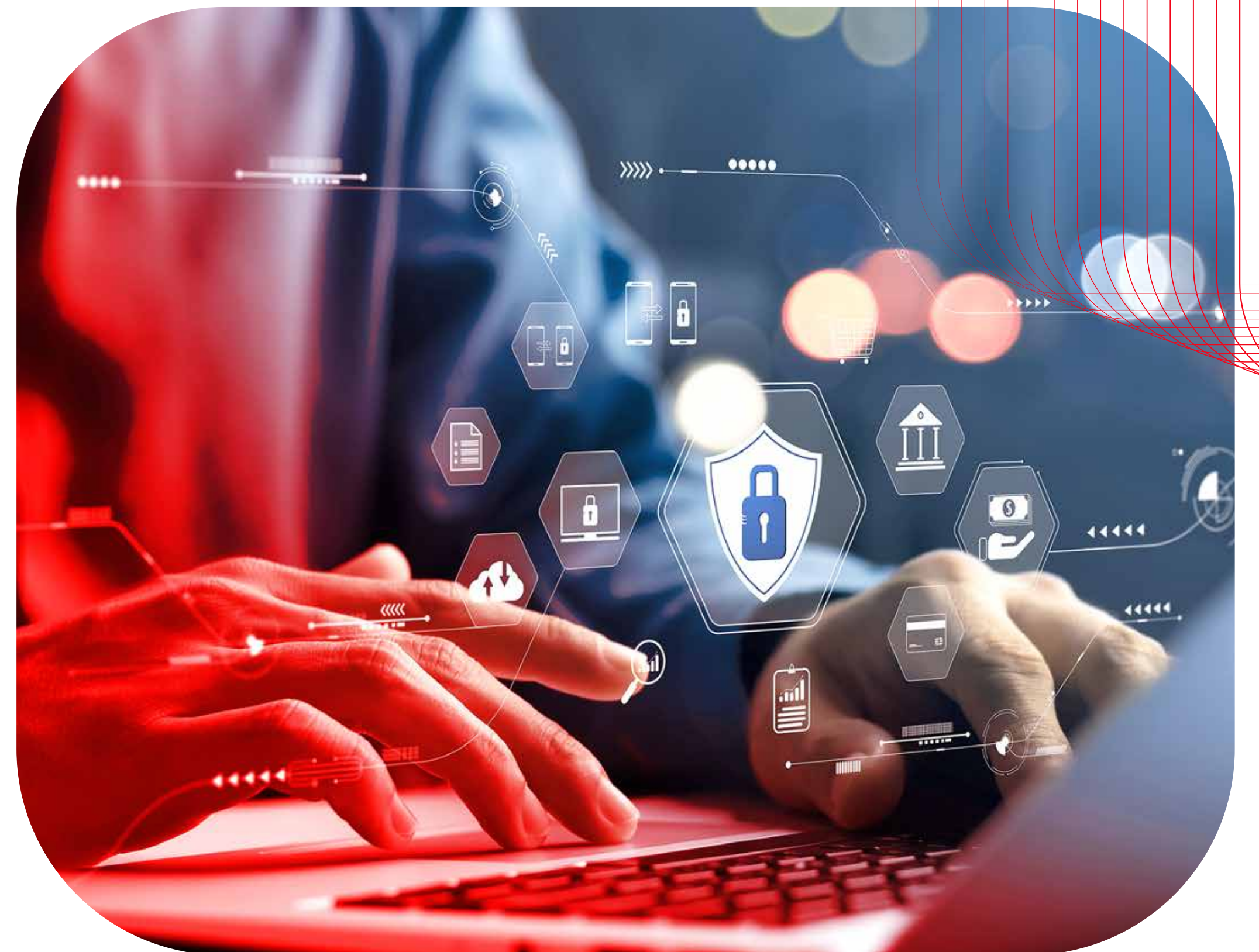




Optimise and secure your business with e&'s Private 5G Network

e&'s Private 5G Network provides an end-to-end, self-contained network for high-grade security and privacy, private control, increased flexibility and operational control that mitigates the risk of outside intrusions and attacks. Our solution delivers an optimised network infrastructure for your sensitive data and mission critical operations, enabling you to benefit from 5G connectivity for: high throughput, ultra-low latency, increased device density and reliable coverage over your business' footprint. Your organisation will benefit from its own private network together with the advantages of ongoing managed services and support from e&.

e& understands your business and has decades of expertise in building, managing and integrating all kinds of networks and services flavours. Our team of experts can help you tailor your private network to suit the challenges and needs your organisation faces today and beyond, building together a roadmap for your business' future.

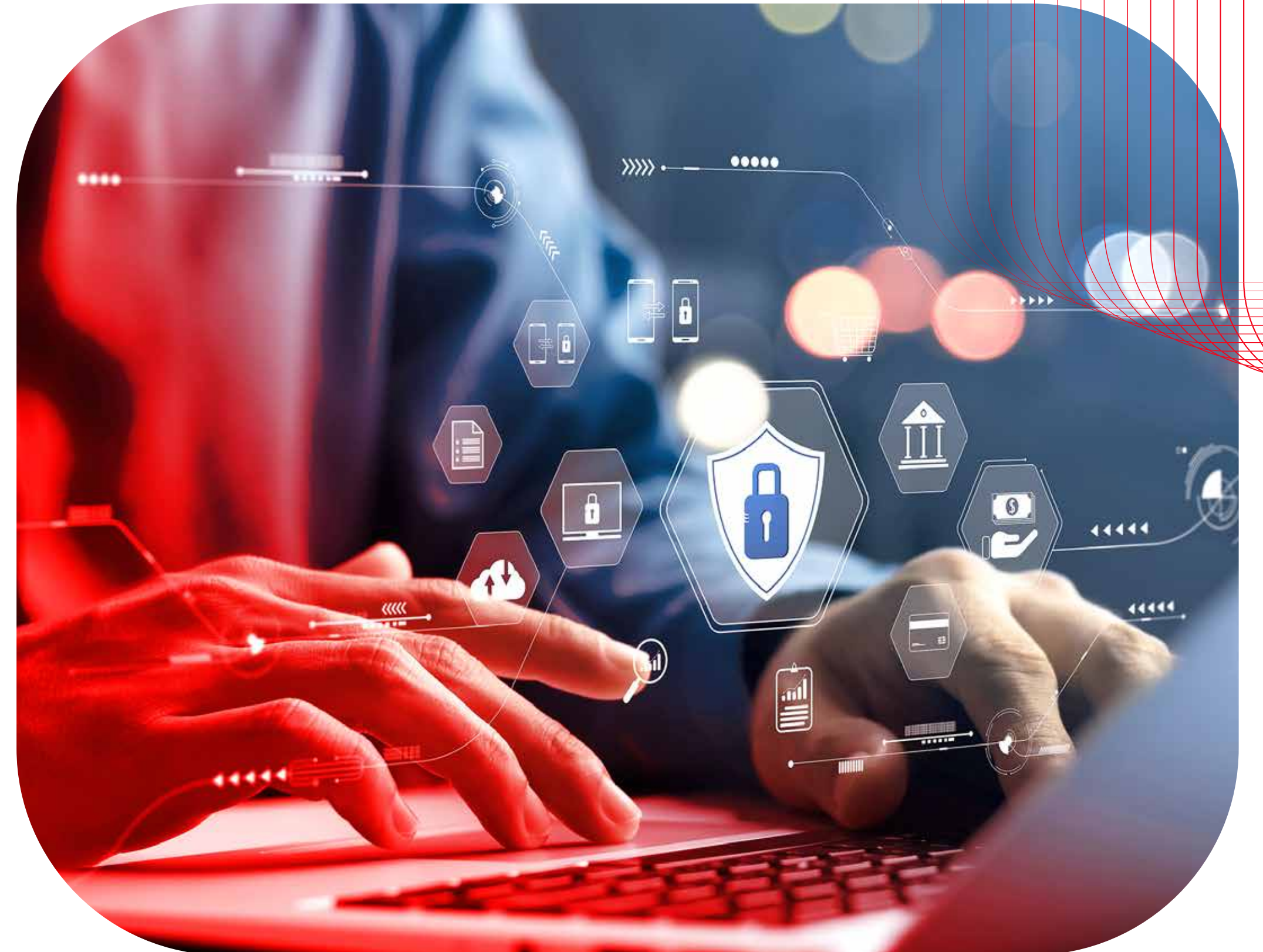




Power your infrastructure with Private 5G Network

Why 5G?

The primary target audience is any organisation considering 5G deployment for IIoT. At the very least, these include operational technology (OT) companies – in other words, those user organisations that will need to apply 5G technologies to their own real-world requirements.





Private 5G Network

Together with proper planning and tailored implementation of a private network, 5G will in turn open doors for countless possibilities and use cases: enhancing efficiency and performance with the help of process automation, increasing agility, safety and productivity to meet fast-changing requirements and market needs, reducing time and risk to market and opening the window for better decisions by having intelligent insights and analytics, all while growing into a sustainable and environmentally friendly company.



Decrease in latency

Delivering latency
as low as 10ms



Connection density

Enabling more efficient
signalling for IoT connectivity



Experienced throughput

Bringing more uniform,
multi-GBPS peak rates



Network efficiency

Optimising network energy
consumption with
more efficient processing



Spectrum efficiency

Achieving even more
bits per Hz with advanced
antenna techniques



Traffic capacity

Driving network
hyper-densification with
more small cells everywhere



Power your infrastructure with Private 5G Network

Traditional wireless technologies have inherent pain points like:

- The industrial field use cases KPI and SLA requirements cannot be met
- Traditional wireless cellular networks only support L3 interconnecting, and do not support L2 protocol stack
- Wi-Fi cannot meet the high-reliability requirements for industrial control
- Complete segregation of various radio resources mapped to different virtual networks is difficult to achieve









Private 5G Network

Need for Private 5G Network

In contrast to a network that offers mobile network services to the general public, a 5G non-public network (also sometimes called a private network) provides 5G network services to a clearly defined user organisation or group of organisations.

Private networks can be desirable for several reasons:

-  High quality of service requirements
-  High security requirements, met by dedicated security credentials
-  Isolation from other networks, as a form of protection against malfunctions in the public mobile network. Also, isolation may be desirable for reasons of performance, security, privacy and safety
-  Accountability: A non-public network makes it easier to identify responsibility for availability, maintenance and operation





Private 5G Network

Private 5G Network service characteristics



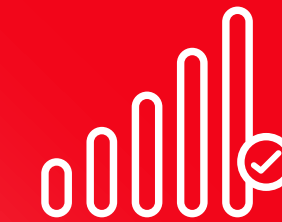
High security

Network isolation, data protection and device/user identity authentication are used to protect key assets of enterprises. Sensitive information (such as production data) of enterprises is stored and processed locally



High availability

A private network can be operated, maintained and managed independently. It provides efficient service redundancy capabilities



High scalability

With a private network deployed on campuses, enterprise services do not need to depend on public network availability, thus giving more control on scalability while reducing E2E latency



Private 5G Network by e&

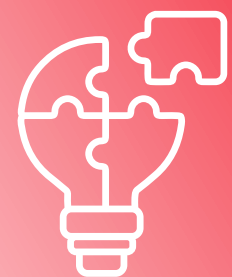
e&'s Private 5G Network is the industry-leading platform for 5G connectivity and infrastructure. It is a dedicated private platform that can only be accessed and used by your SIM cards and devices. e& has partnered with multiple global high-end OEMs and created a vast portfolio that offers a wide range of services and capabilities. Our customised solutions can accommodate every need and requirement for any market, scenario and nature of business, with instant delivery and a GTM approach.



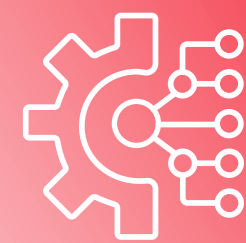


Private 5G Network by e&

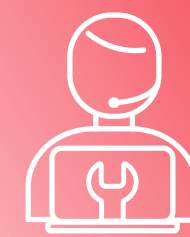
Through e& vast experience and broad ecosystem knowledge, we bring years of experience in helping customers plan, transform and optimise their networks, services and applications. With an emphasis on security and keeping mission-critical functions up and running, we can provide additional services as needed to help manage your private network every step of the way, making it a smooth journey.



Turnkey managed solutions that include design, delivery, installation, testing and power-up



Complex integration support with different systems and vendors



End-to-end management and operational support



Business, security, IoT and application strategy services



Private 5G Network high-level design

The wireless network (5G New Radio/CPE), transport network and 5G core work together to provide the Private 5G Network solution. Enterprises can flexibly customise private networks and configurations based on application scenarios and use types. The solution has remarkable advantages in terms of privacy and security.

Challenges

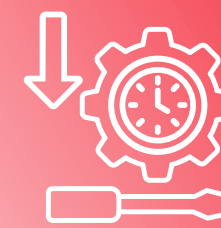
The manufacturer aims to lead the digital transformation and position itself as a world-leading and innovative industrial operator, offering relevant technology solutions that can:



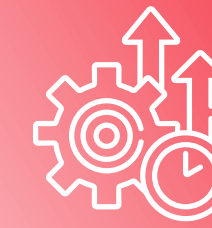
Provide secured, stable, reliable and flexible high bandwidth, together with extensive radio coverage and low latency



Reduce high cost to high data rating and consumption



Reduce connectivity downtime risk



Improve efficiency, productivity and safety





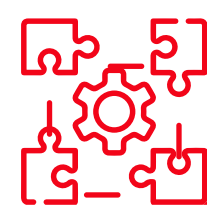
Solutions

To achieve the benefits that a digital transformation can offer, e& is proposing the following solution:



Private 5G Network (Radio + Core)

- Business-grade security & privacy with fast and private processing
- High bandwidth and mission critical ultra-low latency with computing power to the edge
- Increased device density and reliable 5G coverage



Turnkey managed solution
that includes design,
delivery, installation,
testing and power-up



An end-to-end solution from CPEs/devices and 5G connectivity



24x7 managed services and network support





Private 5G Network

- **Full control, security and flexibility**-Deployed with dedicated equipment, devices and data capacity, and built-in security and privacy
- **Improved performance, productivity and safety**-Increased device density, improved latency, bandwidth and reliable coverage
- **Administrative and operational control**-Restrict which and how devices connect to your private network
- **Managed services** - Design, installation, testing and power-up and support



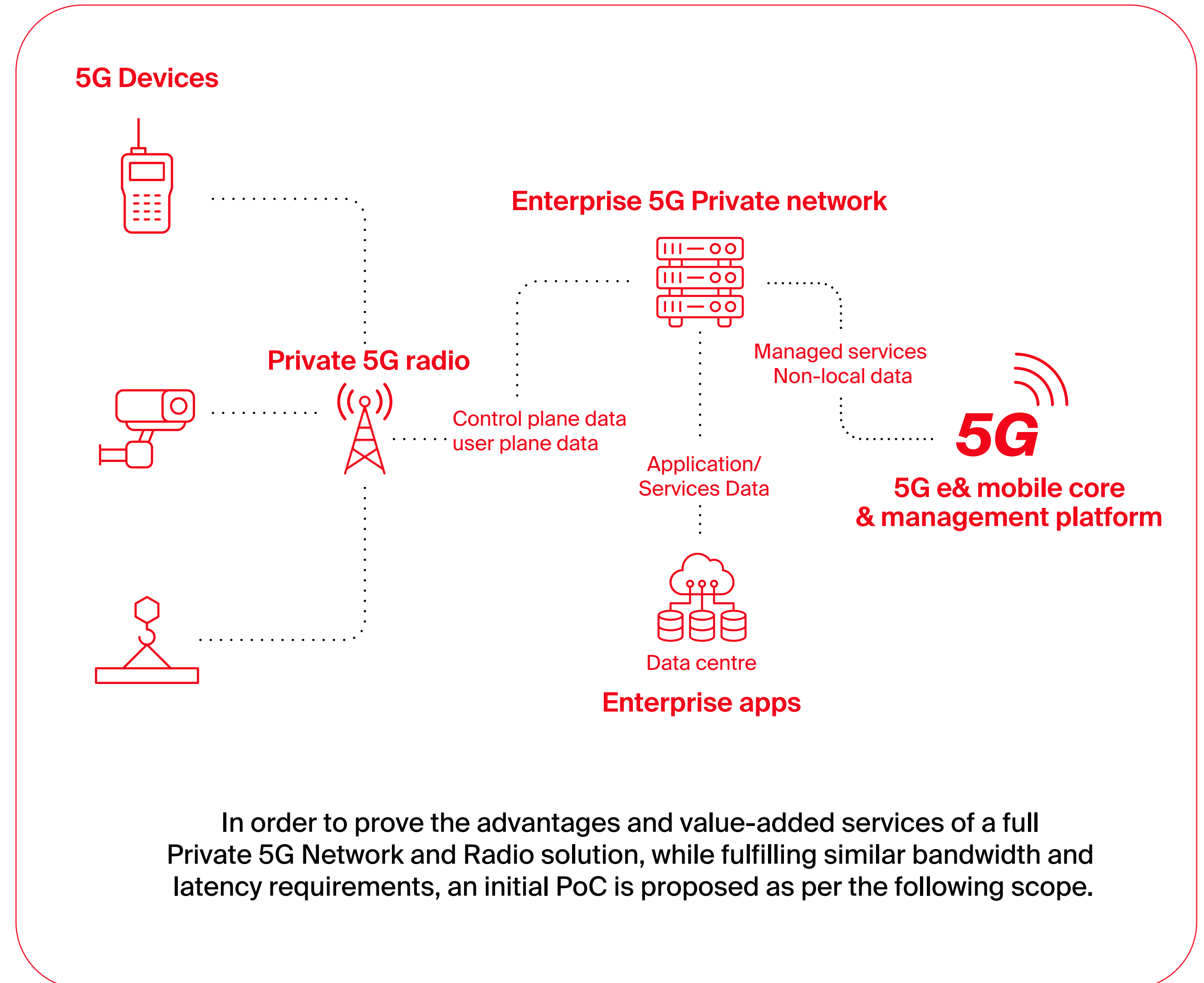


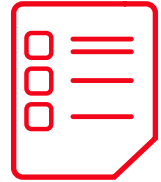
Project details

e& is proud to work with the UAE's largest industrial manufacturer to provide 5G solutions for manufacturing control & monitoring and other industrial use cases.

The scope of the project will be to enable unified 5G connectivity for all of the manufacturer's 5G cameras, devices, machines, robots, asset tracking and other necessary equipment. e& will deploy Private 5G radio towers and small cells to cover all the required areas together with a full Private 5G Network, which will be deployed on the manufacturer's premises.

The traffic from the Private 5G radio towers and small cells will connect over dedicated SIMs/devices and Private 5G Network connectivity all the way to the manufacturer's application servers and data centres for the specific use cases. The high-level design of the connectivity is shown in the diagram to the right.



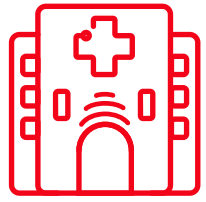


Supporting businesses' growing demand for robust private connectivity solutions

The need for robust, flexible and modular private connectivity solutions – to integrate people, sensors, machines and more-is greater than ever.

To help you navigate your networking needs, e& can evaluate and implement a Private 5G Network solution that will digitalise your business and take you forward to Industry 4.0 revolution in a highly secured environment





Why partner with e&?



Industry-leading expertise



Customised solution offering



Seamless integration capabilities



Continuous innovation and upgrades



Single managed service provider



Round-the-clock support services





Contact us

Together, let's design a business model that focuses on elevating your customer experience, optimising resources and fostering a sustainable future.

For more information contact your Account Manager or visit

e& UAE

Experience the difference on the network of speed

5G

FIBRE

