5G Network Design Security Consultancy

QinetiQ 5G Security and Resilience

5G networks will require higher levels of security than previous generations. With the increase in virtual private networks (VPNs) and the rise of anonymised search engines, such as DuckDuckGo, consumers are demanding greater privacy and security.

Governments are introducing network security regulations and laws to protect citizens and address national security concerns; Europe has seen the introduction of GDPR, with record-breaking fines for well-known companies for data breaches of consumer personal data, and in 2019 the US banned Chinese telecoms firms and issued Entity Listing notices, effectively blocking US companies from working with them to protect their national security interests.

Businesses, enterprises and industry are adopting 5G for business critical operations, for example the port of Hamburg has adopted 5G and Internet of Things (IoT) to become a connected port – requiring high levels of security and resilience.

The wide-scale adoption and long-term success of 5G depends on designing security into 5G networks. With consumer and business demands for increased security, requirements for compliance with government regulation on network security, and the new economic and technical challenges that 5G network design poses, how can 5G network designers address these significant issues?

QinetiQ is an independent, trusted partner who can help you at all stages of your 5G journey, guiding you through the evolving threat landscape to ensure that your 5G network design is secure – meeting the security demanded by customers and regulators, as well as your other network design objectives. Whatever stage you are at with your 5G network design and deployment, and whatever the network type QinetiQ can help guide you through the evolving threat landscape.

Our 5G Network Design Security Consultancy is a bespoke service built around the needs of your network design team. We can help you to deliver secure 5G network designs for commercial, private or experimental testbed networks and at all scales (campus, local, regional or national) – whether you are building an industrial private network using recently released spectrum in the UK or Europe, rolling out a national commercial network, or building a sector specific or academic testbed.

Key Features and Benefits

Independent, trusted advice
Impartial advice on the best solution. We don't sell security products so are truly independent in the advice we give. All of our consultants are NCSC accredited and have many years' experience working for clients with the most demanding security requirements.

Deliver on all of your priorities, including security
Our industry best practice Security By Design is a balanced risk management approach that enables you to meet customer security demands, comply with emerging network security regulations, and deliver your other network design objectives.

5G specific
All our consultants are trained by QinetiQ's 5G communications experts, so there is no knowledge gap, or 'language' barrier; we integrate seamlessly into your team and deliver value from day one.

Experienced and market leading
we were one of the first organisations to apply a Security By Design approach to a 5G network design. Our unique experience, expertise in 5G and cyber security, alongside our experienced security professionals, mean you can be confident that we will deliver.

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Network Design Process
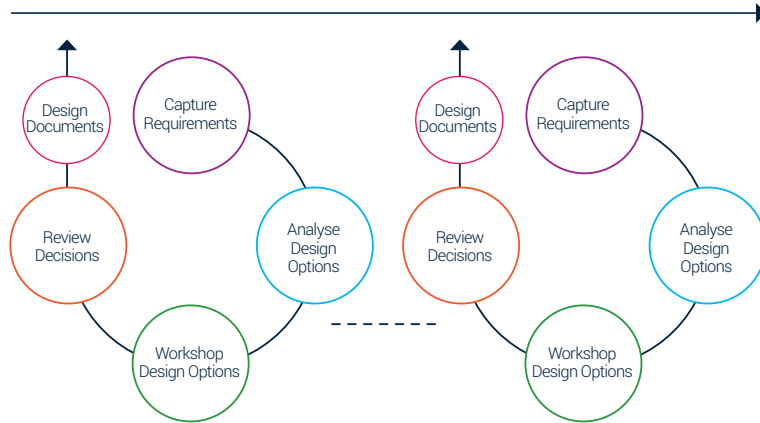
Tailored service

QinetiQ's service is tailored around your needs, expertise, capability and capacity. We deliver in the way that is most appropriate for you, using a consultancy model. Typical approaches including:

– Us being fully embedded in your team, working to your processes. This approach is suitable for large and complex projects.

– Us helping you to define your processes and approach. This approach is suitable for organisations with less security experience.

– Us holding regular security surgeries for your design team. This light-weight approach is suitable for smaller organisations, or organisations with more security experience.

Best practice approach

Our consultants deliver a best practice Security By Design approach to network design. We start by identifying who owns the security risk in your network, and understanding the level of risk they are prepared to accept. At each network design decision, we provide security input, presenting a range of tailored options. This enables your design team to consider security balanced against other factors (such as cost, performance and safety) at each stage of the network design process. The result of this process is that appropriate security measures are built into the network. We recommend security measures using industry frameworks such as Centre for Internet Security's (CIS) framework.
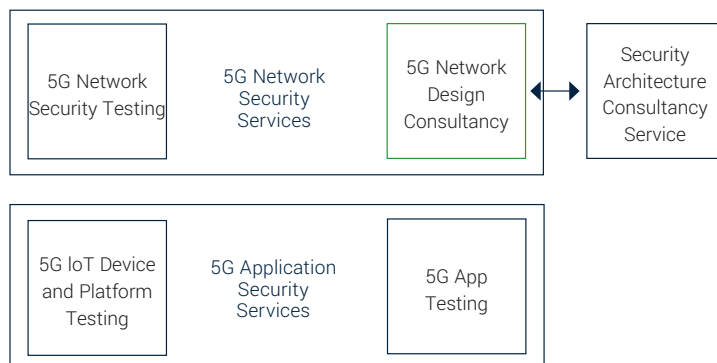
Certified and world-class security consultants

Our company and consultants are certified by one of the world's leading government cyber security agencies – the UK's National Cyber Security Centre (NCSC). We are a certified Cyber Security Consultancy, our consultants are Certified Professionals (CCP), and we are listed on NCSC's Critical National Infrastructure (CNI) Marketplace as a trusted supplier. Most importantly, our 5G security consultants have experience of working on the designs of networks with the most stringent security requirements.

5G specific service

The service we deliver has been tailored to 5G by our communications experts who have extensive mobile and 5G experience. For example the basic pillars of our security approach have been extended from the standard considerations of confidentiality, integrity and availability to include specific factors relevant to 5G and its applications.

All of our consultants have received 5G-specific training – meaning that they can start to deliver from day one.

QinetiQ 5G Security and Resilience

This 5G network design security consultancy service forms part of QinetiQ's wider 5G Security and Resilience portfolio, which provides security and assurance of the 5G network, smartphone applications, and IoT through a suite of integrated consultancy and testing services. In particular, customers may wish to combine this service with:

– **5G Network Security Testing** – a comprehensive suite of security assurance testing services for 5G networks. These can be used to test and assure the security of the deployment of a 5G network design.

5G network design consultancy also links to Security Architecture Consultancy within QinetiQ's wider Cyber and Digital Resilience portfolio– this provides consultancy services to ensure the security of your digital infrastructure at the enterprise level, using the same balanced risk management approach.

Collaborating with QinetiQ

At QinetiQ we bring organisations and people together to provide innovative solutions to real world problems, creating customer advantage.

Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

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