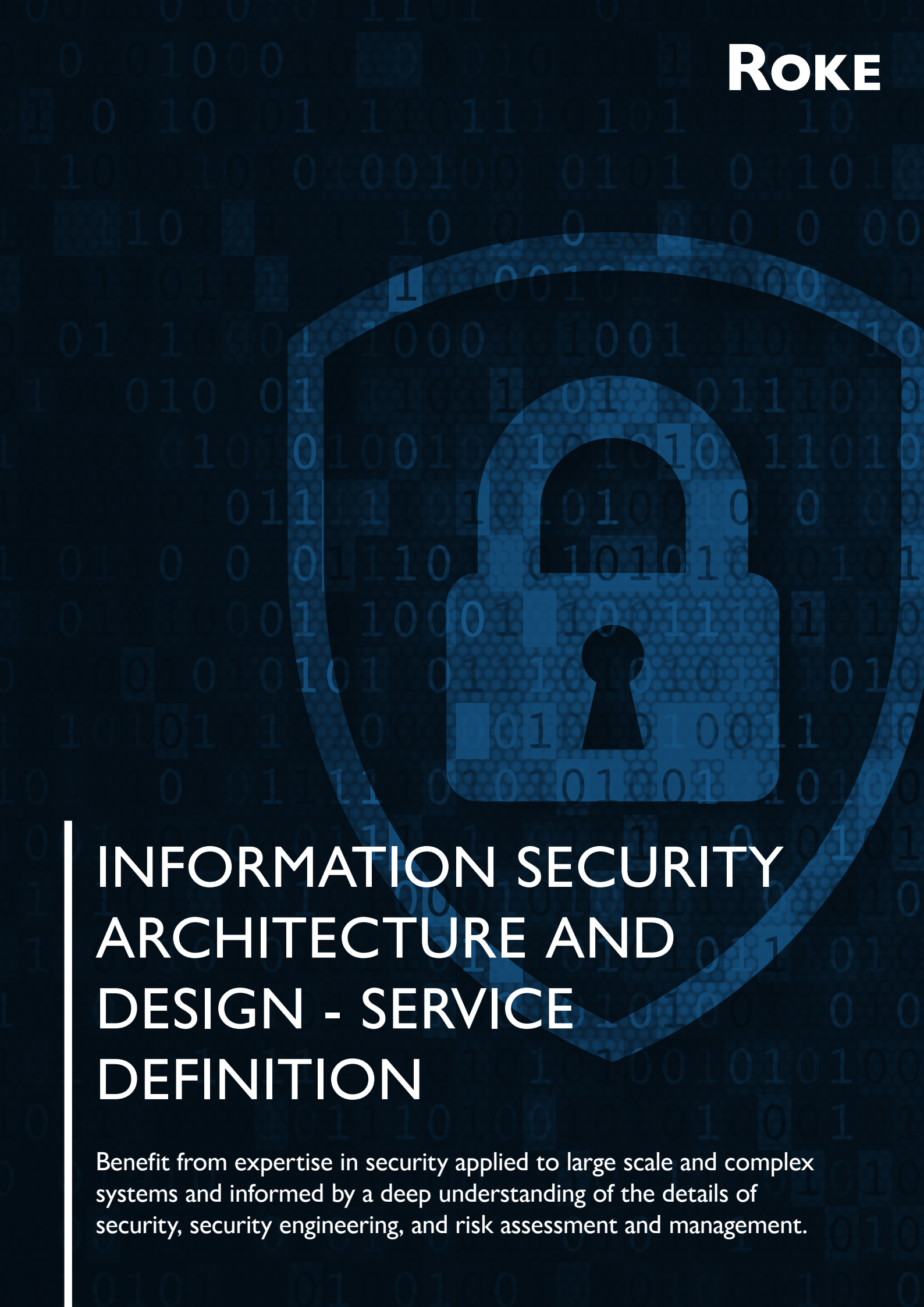
ROKE



INFORMATION SECURITY ARCHITECTURE AND DESIGN - SERVICE DEFINITION

Benefit from expertise in security applied to large scale and complex systems and informed by a deep understanding of the details of security, security engineering, and risk assessment and management.

INFORMATION SECURITY ARCHITECTURE AND DESIGN

Roke provides a security architecture and design service for complex systems and emerging technologies against a backdrop of evolving threats and human factors.

We combine information and cyber security best practices with enterprise architecture and a deep technical understanding of threats, vulnerabilities and controls. We draw on our experience, over many years, of designing and implementing secure systems for industry and government.

Our Secure by Design approach integrates current and strategic business objectives with pragmatic and proportionate risk management.

We provide independent advice and assurance on all aspects including design processes, implementation, and supply chain.

SERVICE OFFERINGS

- Security architecture
- Secure design
- Human factors
- Risk assessment
- Test and assurance
- Training and awareness

Roke applies knowledge of the inner technical workings of complex systems, and of the principles of cyber security, to offer advice and support. We work with you to assess and treat your most important business risks, and to offer designs and engineer solutions.

We provide these services across the Defence, National Security, Central Government, and Industrial sectors.

DETAILED SERVICE DEFINITION

Security architecture

Roke apply the foundational principles of cyber security to design and validate architectures that meet your information security needs. We use standard approaches such as TOGAF SABSA, or ArchiMate. Our teams include experienced practitioners with a mix of qualifications (CISSP, CISO, ISO27k implementer, NCSC CCP status) and those at all stages of their cyber security career. We do not only focus on the technical aspects, with our human science team including experts in encouraging secure behaviour and information operations.

SECURE DESIGN

Roke is a centre of engineering excellence. We know how to design systems and to design for production. With experience in software, firmware, hardware, sensors and communications (fixed and RF), we can create designs and development processes for your required level of security. Whether it's a component or a system; whether or not your system uses machine learning or processes large volumes of data; whether an embedded system or in the cloud, we can design the appropriate security measures.

Human factors

Security is not just about technology. Our human science capability can advise how to make sure that the human is a security asset, rather than a liability. Linking with our user-experience capability, we can ensure that the design fits the user, rather than the other way around.

INFORMATION SECURITY ARCHITECTURE AND DESIGN

Risk assessment

To support the definition of appropriate architectures and robust designs, Roke conducts tailored threat analysis and risk assessments. Using industry standards (e.g. ISO/IEC62443 for industrial systems; or SAE J3061 or the draft ISO21434 for automotive systems; or ISO270001) and industry best practice, we assess the business risk. We analyse the system, prioritise the most important risks and propose realistic treatments or design options.

Test and assurance

Roke can test and assure architectures, designs and systems to build confidence that they meet their security goals. Offers include automated conformance test and the creation of virtual cyber test environments.

Training and awareness

There are many standards and approaches. Roke provide high-level training and awareness sessions to explain the various approaches and explore how risk assessments and secure design are a benefit.

KEY SERVICES

Security architecture

- Systems approach to security
- Industry standard approaches
- Security appropriate to needs
- Experienced and qualified staff

Secure design

- Secure by design
- Threat modelling
- Design for production
- Secure software
- Full-stack security

Human factors

- User experience enabled design
- Account for human behaviour in security design

Risk assessment

- Prioritise business risks for treatment
- Apply industry standard methods with deep technical insight
- Socio-technical systems analysis

Test and assurance

- Automated conformance testing
- Virtual and scalable test and training environments

Training and awareness

- Explanation and exploration of approaches and benefits
- Presentations range from highly technical to senior management briefings

ROKE

For more information on the services discussed in this document you can contact us

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Visit: www.roke.co.uk

We believe in improving the world through innovation. We do it by bringing the physical and digital together in ways that revolutionise industries.

That's why we've fostered an environment where some of the world's finest minds have the freedom, support and trust to succeed.

Roke is a team of curious and deeply technical engineers dedicated to safely unlocking the economic and societal potential of connected real-world assets. Our 60 year heritage and deep knowledge in sensors, communications, cyber and AI means our people are uniquely placed to combine and apply these technologies in ways that keep people safe whilst unlocking value. For our clients, we're a trusted partner that welcomes any problem confident that our consulting, research, innovation and product development will help them revolutionise and improve their world.

If you're bringing the physical and digital worlds together, we'd love to talk.

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