BAE Systems in the Telecommunications Sector

35+ years of innovation
Helping Communication Service Providers reduce costs, remain compliant and be secure

The telecommunications industry is at an inflection point. Emerging technologies like Software Defined Network (SDN) and 5G are promising rapid progress of digital economy, but these very technologies are also lowering the barriers of entry and putting fierce competitive and cost pressures on the traditional telecoms and media vendors. On top of this, geo-specific regulatory directives around data privacy, protection and encryption are making it even more difficult to build new revenue streams for communications service providers (CSPs).

Unlocking growth potential

5G is expected to bring a significant revenue growth opportunity following years of flat revenue in the telecoms market. New revenue streams in the consumer segment, as well as a more proactive role in enterprise digitisation, will enable communications providers to benefit from the 5G wave. They have the technology pieces; virtualised networks, software defined capabilities, API driven microservices, data engineering, analytics – all of these come with the benefits to help businesses become more agile, have quicker time-to-market and become more ecosystem-centric. Telecom companies are in a state of reinvention, building their footprint for the future.

BAE Systems can help you navigate transformative technologies and support your journey towards a cloud-native era.
As criminals increasingly use social media and smartphones to facilitate their crimes and activities, the data they generate – which is transported by the CSPs – is of huge value to Law Enforcement and National Security Agencies (LEAs). It now forms a key element in their efforts to monitor threats, detect crimes and investigate and prosecute criminals.

BAE Systems provides next-generation regulatory compliance solutions to keep CSPs compliant with their regulatory obligations and support LEAs in their fight against crime. With the emergence of 5G and a cloud-native era, BAE Systems is at the forefront of evolving industry standards, ensuring long-term compliance for CSPs. Failure to comply with these standards could delay CSPs being able to launch new services in the market.
Lawful Interception

Over the past two decades, CSPs have continued to evolve their networks to incorporate technical innovations around Network Function Virtualisation (NFV), Software Defined Network (SDN), open APIs, and microservices. This trend continues with further evolution towards 5G and cloud-native. This warrants changes in the traditional Lawful Intercept (LI) solutions to support the cloud-native era and BAE Systems is leading the way by virtualising its LI portfolio and keeping it aligned with the technology changes and industry standards. Our cloud-native approach enables us to provide LI for the most demanding of global tier one carriers with more than 100 million subscribers, as well as scaling it down to service a network with only a few thousand.

3GPP Release 16 touches upon Containerised Network Functions (CNF) to enable dynamic scaling of 5GC on an on-demand basis, and LI systems will need to be able to support this dynamic scaling. We are ahead of the curve and proactively working with industry partners to utilise the available tools, like Kubernetes (from Google), and have seen early benefits of containers first-hand.

Data Retention and Data Disclosure

Interoperability and versatility are key when talking virtualisation – hardware, cloud and software must work together and those vendors that can prove adaptable will succeed. This should be no different for the tool required to support regulatory compliance. Historically data retention and disclosures has been a sensitive topic and often teams and solutions kept separate from normal business systems.

But virtualisation, software-defined networks and 5G are now demanding that data retention and law enforcement disclosure become a business basic in the same way as revenue assurance, fraud prevention and wholesale billing. By integrating the compliance requirements into the wider business needs as part of an IT transformation, a solution can be found to meet the obligation in a cost effective (agile, supportable and automated), transparent (auditable, with data integrity) and easily reportable way (business assurance and government reporting).

Thanks to understanding the pulse of the market and to support CSPs’ journey towards cloud, we have been developing cloud-native versions of our data retention platform, which provides complete deployment flexibility – public, private or hybrid. It’s completely secure and provides huge cost benefits to the customers.

It’s time to change the norm and design systems that have compliance and security built-in from the start. Transform your IT to “Compliant by Design”.

BAE Systems in the Telecommunications Sector
Cyber Risk Reduction

Cyber Threat Intelligence

Gain visibility into your threat landscape

CSPs provide the fabric for our increasingly connected societies and are a critical part of our national infrastructure (CNI). At the same time, complex modernisation and digital transformation programmes can expose this fabric and make them more vulnerable to cyber risks.

As cyberspace evolves, so do the threats that seek to exploit users for financial, political, or nation state objectives. Understanding the nature of the threats communication providers face is an integral part of any mature cyber security programme.

Our view of the threat landscape is informed by the threat actors that cause the most impact - not the ones that make the most noise. We constantly track 130+ Advanced Persistent Threat (APT) groups worldwide and focus on high-end threats that target large networks of national importance.

BAE Systems’ Cyber Threat Intelligence Service is made up of several components:

- **Threat Intelligence Portal Access**
  All our subscription customers have access to our Threat Intelligence Portal. Through this users can access our monthly operations summary, regional threat reporting, and other services.

- **Threat Intelligence Research Reports**
  For customers requiring deep insights into past, current, and emerging threats we offer access to our research reports. Our research reports contain detailed breakdowns of malware, campaigns, and are intended for intelligence teams tasked with tracking and responding to the threat landscape.

- **Threat Intelligence Signature Feeds**
  Threat data acquired by our team during investigations is turned into IOCs and Rules delivered via our signatures feed. Our feed is compatible with STIX, and integrations are available for third-party platforms such as EclecticIQ, ThreatConnect, and Anomali.

- **Threat Intelligence Analyst Access**
  On-demand subject matter expert analysis of threats, catered to your specific analyst support requests.

All of this can be combined with personalised briefings from our threat intelligence team, either in-person or via WebEx.
Incident Response

Incident response is the final step of a robust cyber security programme, but many companies overlook this very important step and in turn increase the risk of significant damage caused by delay in responding in case of an unfortunate security incident.

BAE Systems offers expertise and flexible resourcing options to equip your security team with the best response capability:

**Incident Response Consulting**

Many security and incident response teams are burdened with alert overload, and sorting through these flags in an attempt to spot the slightest hint of a problem is a huge challenge. We can provide an incident response plan development service – building an NCSC endorsed framework to successfully handle security incidents. Leveraging experience and best practices, we can create policy and procedural guidelines to help meet regulatory requirements.

In addition, playbooks can be developed to address specific types of incidents such as phishing and breach of privacy. These playbooks aid the incident response team in resolving incidents quickly and in a controlled, well-documented and well-informed manner.

**Incident Response Emergency Support**

In case of a security incident, every minute counts, so one call to our 24/7 hotline and we deploy expert Incident Response teams to your site. Supported by BAE Systems’ Centres of Excellence and infrastructure around the globe, we move fast to mitigate the effects of the attack.

Our teams deploy proven tools, proprietary analytics, and unique knowledge of the tactics employed by over 170 of the world’s most advanced threat groups to uncover critical facts fast.

**Incident Response Retainer**

An incident response retainer with BAE Systems guarantees prioritisation and immediate response whenever your crisis occurs. We spend time in your organisation, understanding you, your team and your operation. It also eliminates costly delays due to procurement processes and required contract approvals. During our quarterly review sessions we help you identify root causes and security improvements and review, update and improve your response plan.
Secure Digital Transformation

Move on from talking digital transformation – engineer it

Your future rests on the engineering platforms and digital solutions that support your core business operations. But can you trust them?

Digital transformation is crucial – but telecoms companies operate in high trust environments and can’t afford project failure, downtime or security breaches. At BAE Systems we take a problem-solving approach to truly understand and address our telecom customers’ digital transformation challenges. We combine our mission-centric attitude with security expertise to deliver the right results.

Opt for secure digital transformation.

Advisory Services
We are a partner you can trust. Our understanding of complex data and ability to analyse and leverage the power of data has been applied to numerous clients in the telecoms sector, secure government agencies and commercial enterprises. Choose from our wide range of diverse experience optimise your big data programme and support your commercial strategy.

Secure Cloud
Cloud adoption is a key mantra in many industries and telecommunications is no different. Many CSPs are already demonstrating a digital-first, cloud-first approach in their move towards 5G-Core (5GC). But how do organisations within the high-trust sector, who hold valuable consumer data, take advantage of cloud technologies and ecosystems for both public and private cloud? And, how can they do this whilst maintaining the security they need for their data, mission and sensitive applications? We have successfully helped many organisations make the most of cloud and other digital technologies, for example by using DevSecOps methodology and benefit from the agile development of new applications and systems.

Data Services
Specialised data privacy and data protection services to help you navigate through 5G while keeping you compliant. Our compliance and regulatory services combine industry best practices and an in-depth understanding of regulatory and ethical obligations to help our clients store, share, protect and use their information.
Why clients choose

**BAE SYSTEMS**

Unique combination of skills and capability service providers (CSPs)

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**Strength in Depth**
Working with complex data sets is at the heart of our business
We understand complicated problems and bridge the gap between old and new platforms

**Protect and Enhance the Connected World**
We are in the business of defending nations and innovation is at our core – to develop cutting edge technology, people and processes

**Secure by Design**
Security is our heritage, it permeates everything we do
We combine user-centric design with robust security standards ensuring that security controls do not compromise ease of use

**Ability to Deliver**
Our engineering mind-set and practical delivery focus mean that the strategies we create together do not sit on a shelf gathering dust but are actually executed and delivered through
Fight Against Crime
Keeping UK safe by routinely serving over 60% (lawful) data disclosure requests to fight crime
Unmatched scalability and data processing capability – handling of billions of records per day

Protect your Network
Providing contextual and actionable threat intelligence to protect your network against uncertain political and technological landscape around 5G
We are a founding and certified member of the NCSC Certified Incident Response Scheme and CREST certified to provide cyber incident response services to government, critical national infrastructure and other operators of nationally significant networks

Enhance your Operation
Award winning digital and creative services focusing on human-centric digital transformations
Decades of experience in helping Tier 1 CSPs modernise their technology stack and reduce their business continuity risks, in a secure manner
We are

BAE SYSTEMS

At BAE Systems, we provide some of the world’s most advanced technology, defence, aerospace and security solutions.

We employ a skilled workforce of 87,800 people in over 40 countries. Working with customers and local partners, our products and services deliver military capability, protect people and national security, and keep critical information and infrastructure secure.