

# We make your world a smarter place.

North designs, delivers and manages integrated systems that enhance the day-to-day user experience in complex, critical environments. We use technology to optimise resources and to ensure your people, buildings and places are better connected, safer, and more secure.

We build stronger, more efficient, robust and reliable networks from the ground up. Our smarter place solutions, from intelligent CCTV and perimeter security, to safety and environmental monitoring, can dramatically improve the lived experience, reduce your operating costs and help you meet sustainability goals.

Our people are industrious and inventive, and we take great pride in what we build. We work closely with our clients, as part of their team, to better understand their sectors, their environments and their challenges. However complex the places we work in may be, we use technology to make them simpler to manage, safer to be in and more efficient to run.

Stronger networks, smarter places

## Introducing the Smart Base

Across the globe, cities and large-scale enterprise organisations are adopting 'smart' approaches to their operations. North helps local authorities, major tech companies and financial service institutions to implement and connect new technologies and deliver truly transformational benefits.

The same principles and technologies can also be applied to military bases. Smart Base is enabled by the Internet of Things (IoT). Today, IoT connections span the globe and permeate our homes, offices, factories, roads, vehicles and even space. By integrating networks and digitally connected devices such as cameras and sensors we build solutions that address the challenges most relevant to military bases, such as:

- Improving security and access control
- Enhancing the lived experience
- Creating safer environments
- Making more efficient use of resources
- Improving accommodation
- **Environmental sustainability**

What's more, by embracing these new technologies, you can exploit the data they produce. This allows you to make more informed and impactful decisions, enhancing your operations both now and in the future.

While technology is the key enabler it's our 'know-how' that sets us apart. We use our experience to deliver secure, future proofed capabilities that meet the rigorous defence standards.



## **Smarter Base Solutions**

North delivers practical solutions to real-world problems.

We provide the access, expertise and guidance you need. All of our Smarter Base solutions are proven and specifically designed to optimise the efficiency of your base and procedures, whilst keeping your people, buildings and places safer and more secure.



#### **Integrated Control Centre**

Enhancing safety and security is a key advantage of a centralised approach. Improved awareness, increased efficiency and actionable insight made possible by combining multiple systems and data sources.

#### **Intelligent CCTV**

Gives you a clearer picture of incidents and empowers your team to prioritise and respond to threats in real-time.

#### **Vehicle Access and ANPR**

Allows you to track vehicles at gate access points, using Automatic Number Plate Recognition (ANPR) to identify vehicles of interest, and smart analytics to trigger real-time alerts.

#### **Access Control**

Uses biometrics and intelligent key/lock systems to give you full control over your access points, keeping restricted areas secure.

#### **Perimeter Detection**

Advanced warning and proactive detection of possible intruders at the perimeter, allowing time to intervene and deescalate potential situations before they occur.

#### **Public Address Voice Alarm (PA/VA)** Integration

Creates automated public address systems linked to sensors and analytics.

#### **Lone Worker Monitoring**

Monitors employees working in isolation and highlights potential emergency situations.

#### **Asset Tracking and Utilisation**

Allows high value or important items to be tracked across the base, reducing loss and providing centralised auditing. Utilisation can be recorded to optimise preventative maintenance schedules.

#### **Intelligent Lighting**

Helps you react to situations and support activity that may be happening in certain areas across the base, reducing energy costs.

#### **Building Compliance Management**

Allows you to remotely check and report on areas such as fire door status. emergency lighting, water safety and fire appliance status, ultimately lowering the number of required visits and reducing your operational costs.

#### **Environmental Monitoring**

Manages and monitors air quality, harmful substances, water levels, and noise pollution.

#### **Waste Management**

Allows for efficient routing based on actual waste disposal utilisation.

#### **Fleet and Driver Management**

Eradicating outdated paper systems to coordinate and make use of the data captured.

#### **People Health**

Uses body-worn sensors to report potential health risks and rising stress levels.

#### **Workshop Safety Monitoring**

Uses sensors to monitor CO and CO2. particulate matter, volatile organic compounds and nitrogen dioxide to ensure a safe working environment.

#### **Housing Safety and Efficiency Monitoring**

Monitors risk of damp and mould in accommodation, as well as measuring energy utilisation to give a better view of building efficiency.



### **Smarter Bases**

#### **People Health**

Body worn sensors to report health risk and stress.

#### **Environmental Monitoring**

Manage and monitor air quality, water levels, flood risk and noise pollution.

#### **Intelligent CCTV and Access Control**

Intelligent security solutions protecting people, buildings and places.

#### Waste Management

Efficient routing based on actual waste disposal utilisation.

#### **Integrated Control Centre**

Converged visibility and insights across multiple systems and data sources.

#### **Public, Private and Low Power Wireless**

Provision of multiple networks for connecting people and devices.

#### **Network Foundations**

Accredited experts in installing copper, fibre and IP infrastructure.

#### **Workshop Safety**

Sensors monitor CO<sub>2</sub> & CO in workshops/garages, with alerts triggered based on set criteria.

#### Accommodation

Risk of damp and mould is monitored in accommodation. Legionella and water safety monitoring conducted in real-time.

#### **Asset Tracking and Utilisation**

High-value items tracked across the base. Automated service callouts to reduce operational costs of asset management.

#### **PAVA Integration**

Automated Public Address systems integrated with safety and security systems.

#### **Intelligent Lighting**

Reducing energy costs and providing broader insights into environmental conditions.

#### **Access Control**

Vehicle ANPR with analytics enables access authentication at secure entries. Rule-based alerts enable response with accuracy and efficiency.

North builds stronger, more reliable and robust physical networks that underpin any Smarter Base deployment. Structured cabling, fibre optic cabling and airblown fibre are the foundations of your connectivity. Whether it's wired, wireless, or a combination of the two, we design and deliver flexible, fast, resilient and secure infrastructures that we can support remotely 24/7/365, keeping your critical systems operational and optimised.

#### **IoT/5G Connectivity**

North designs and delivers scalable, resilient, specialist Low-Power IoT and 5G based networks that support the visibility and automation necessary to create truly smart military environments. Low-Power networks simplify solution deployment and operation by allowing devices to operate for many years on battery alone, whilst the higher speed and lower latency of 5G connectivity improves performance of data hungry, time sensitive applications, significantly boosting efficiency across your Smarter Base.

#### **Integrated Control Room**

A fully integrated, centralised control centre is the heartbeat of any Smarter Base. From here, you have converged visibility of all the systems, devices and data sources on your network – incorporating your existing fire alarms, CCTV, PA system and any other sensors. It gives you complete situational awareness of your entire operation and means you can manage everything, in real-time, from just one location.

#### **Advanced Analytics**

Data is continually collected through IoT devices on your network, allowing you to gain valuable insights, streamline your services, forecast future outcomes and transform the way your base operates. This continuous monitoring allows you to measure efficiency improvements and ensure a robust return on investment

#### **Enhanced Security**

Heightened base security and improved personnel safety are key advantages of this centralised approach and the situational awareness it offers. Our strategies and tools for safeguarding buildings, assets, people and data are tried and tested over many years, regularly checked and continually enhanced.



## Invaluable sector experience

North has built a formidable and trusted reputation working 'behind the wire' in complex and highly specialised live environments right across the globe delivering tried and tested, reliable and compliant solutions for front-line commands, digital defence, nuclear and more.

We have over 30 years' experience of working in every country where the UK military operates, including deployed locations.

We have all the necessary clearances and compliance certification for working on sensitive and high-security projects including JSP 604 & 440, ECR Process and SCIDA.

Our team understands the challenges you face and the high-pressure environments you serve. Our vast experience makes us a safe pair of hands for negotiating complex and demanding projects, and our reliable delivery model ensures that we can react to demand and scale up resource at pace.

#### Unique end-to-end expertise

North is uniquely positioned to manage and deliver every single aspect of a Smarter Base deployment.

We have industry-leading expertise across every discipline and can build impactful solutions seamlessly, always to the highest standard.

We have a superior understanding of all the analytics platforms that we implement. We partner with the world's top-tier, most highly sought-after vendors and we know how to get the best out of their technologies.

Lastly, across any Smarter Base deployment, we're sure to keep the level of disruption to an absolute minimum, at all times. We understand the unique process of working in live environments and we guarantee that your critical operations will continue to run smoothly, without interruption or downtime.



## Tangible returns

Smart technologies and IoT solutions are increasingly being used to solve realworld challenges such as detecting and reducing crime, enhancing public safety and improving public services.

By applying similar technologies in military environments, we're enabling you to improve security, site safety and the lived experience of personnel and visitors. Using technology to address repetitive and mundane tasks frees up skilled and qualified resources to undertake higher-value tasks. An integrated control centre allows you to manage your base through a 'single-paneof-glass', as well as incorporating existing systems such as surveillance and alarms.



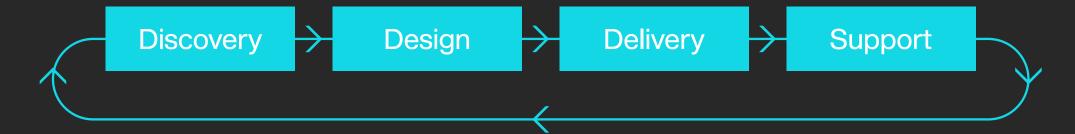
Stronger, faster, more reliable networks and the smarter technologies that they connect, enable your Smarter Base solution to evolve and deliver further efficiency improvements. The data that is collected can be harvested, shared and exploited.

Whilst the increased use of wireless and cellular networks and IoT devices presents cyber security challenges, North diligently follows the principles of Secure By Design ensuring that risks are continually managed and threats overcome.

#### **Benefits Overview**

- Automated access solutions enhance. physical security and safeguard critical assets and personnel.
- Evidential quality intelligent CCTV supports live threat identification and enables guard forces to respond guicker.
- Environmental monitoring and hazardous substance detection improves workplace safety.
- Automated checking of digital credentials reduces human error and frees up resources.
- Existing sensors, cameras and alarms can be integrated into a single connected view, enhancing situational awareness and protecting investments.
- Streamlined and simplified site access for approved personnel improves the lived experience and reduces administration.
- A rich set of data can the shared with other organisations effectively democratising the data for exploitation or forensic analysis.

## North's four-stage service



Our extensive discovery service is designed to provide you with a deeper understanding of your networks, systems, and estates. We build each project on robust research, real customer understanding, and a collaborative agreement of needs and expectations.

Our expert design teams work alongside you to plan integrated solutions that deliver clear benefits. We bring over 20 years' experience in bespoke network and project design — informed equally by our partnerships with leading tech vendors and our wealth of experience in practical delivery.

We pride ourselves on smooth, efficient delivery of even the most complex combined technologies. From construction to fit out and installation, we're the safest pair of hands you can find. Your critical operations keep running smoothly, and your projects are delivered on time and to budget.

Our flexible support solutions and managed services are here to help you 24/7/365 as an extension of your own teams, onsite or on-demand. Our proactive approach maximises network uptime and keeps your places running optimally. Customised support solutions are designed to meet your exact needs.

## Why North?

## Tried and tested, reliable, highly secure technologies

Innovative solutions that allow you to affordably become smarter.

### Strong, robust, reliable infrastructure and networks

Built from the ground up, underpinning your Smart Base operations.

## Specialist expertise across every aspect of a Smart Base deployment

Our greatest asset is our people, their knowledge and their experience.

## Resilient design delivering high availability and maximum uptime

Ensuring operational and cost saving efficiencies across the board.

## Reliable delivery model with the ability to scale at pace

End-to-end deployment capabilities with the flexibility to react to demand.

## Proven track record of working in complex and critical environments

Unrivalled sector experience having delivered multiple projects on a global scale.

## Experienced working 'behind the wire' in highly specialised live environments

Ensuring your critical operations continue to run smoothly, without disruption.

#### Fully accredited and industry certified

High level clearance and compliance including JSP 604 & 440, ECR Process, SCIDA qualified.

#### **Committed to sustainable practices**

Driving meaningful change towards Net Zero is a core element of our business strategy.





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