



NORTH

Smart Cities

| Integrated solutions that reduce costs and improve lives

Stronger networks, smarter places

We make your world a smarter place.

We design, build and manage technology solutions that improve people's lives – keeping them better connected, safer, more secure and healthier.

We build stronger, more efficient, robust and reliable networks from the ground up. Our smarter place technologies, from intelligent CCTV and control centres to waste management, can dramatically reduce your operating costs whilst also helping 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.

Introducing the Smart City

By 2050, two-thirds of people are expected to live in cities or urban areas. As populations and cities grow, so does the requirement for governments and local authorities to create safer, healthier, better connected and more sustainable places, with easily accessible public services.

North helps local authorities across the UK to introduce and connect new technologies that can deliver transformational benefits – whether that be improving public services, regenerating town centres, combatting environmental challenges, creating safer environments or stimulating the local economy.

The integration of stronger networks and sensor-led, connected devices, such as Internet of Things (IoT) and intelligent management platforms, enables cities to affordably become smarter. By embracing and analysing data, local authorities can make more informed and impactful decisions that enhance public services and advance sustainability goals. On the whole, these futureproofed Smart Cities will be a genuine force for good.



Smart City Solutions

Intelligent CCTV Analytics

Used to identify and monitor crime hotspots, track crowd demographics and movement patterns, optimise traffic flow, plan pedestrian and bike pathways, all resulting in increased safety and improved efficiency.

Smart Waste Management

Increases efficiencies for local authorities by routing refuse collection based on actual disposal rather than universal collection. Creating cleaner, safer streets, lowering emissions and reducing costs.

Intelligent Lighting Systems

Used to keep streets brightly lit only when absolutely necessary, contributing to social wellbeing and safety as well as a massive reduction in energy use and costs.

Smart Property Monitoring

Protects tenants from harmful damp and mould and improves maintenance efficiency by proactively identifying and resolving issues. Cutting disrepair costs and boosting residents' health and wellbeing.

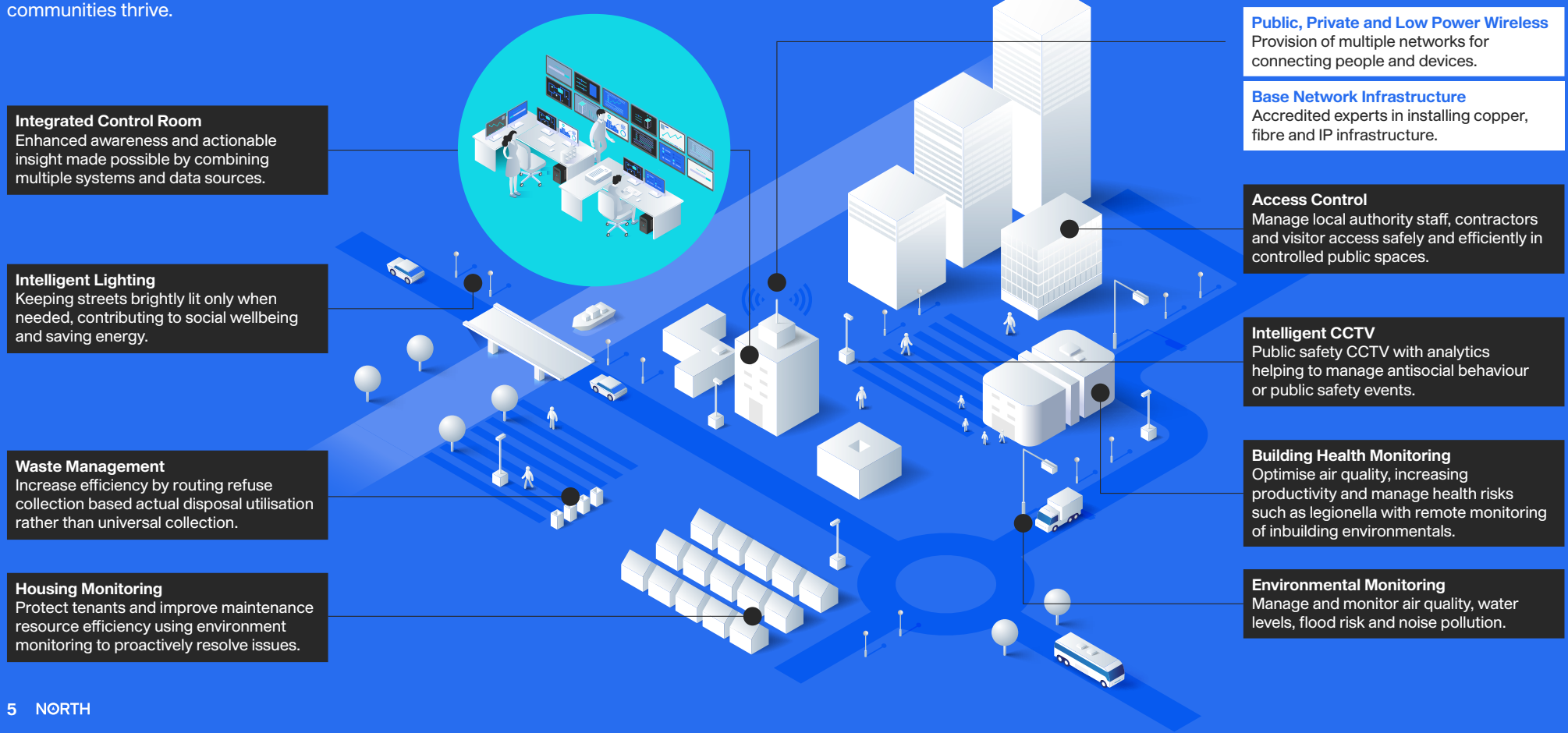
Environmental Monitoring

Improves the management and monitoring of air quality, water levels, flood risk and noise pollution – all in real-time, enabling action to be taken quickly to safeguard citizens and create healthier environments.



Smarter Cities

We design, deliver and manage integrated systems that improve lives. From intelligent CCTV to waste management, we help you to reduce your operating costs, improve services and ensure that your communities thrive.



Integrated Control Room
Enhanced awareness and actionable insight made possible by combining multiple systems and data sources.

Intelligent Lighting
Keeping streets brightly lit only when needed, contributing to social wellbeing and saving energy.

Waste Management
Increase efficiency by routing refuse collection based actual disposal utilisation rather than universal collection.

Housing Monitoring
Protect tenants and improve maintenance resource efficiency using environment monitoring to proactively resolve issues.

Public, Private and Low Power Wireless
Provision of multiple networks for connecting people and devices.

Base Network Infrastructure
Accredited experts in installing copper, fibre and IP infrastructure.

Access Control
Manage local authority staff, contractors and visitor access safely and efficiently in controlled public spaces.

Intelligent CCTV
Public safety CCTV with analytics helping to manage antisocial behaviour or public safety events.

Building Health Monitoring
Optimise air quality, increasing productivity and manage health risks such as legionella with remote monitoring of inbuilding environmentals.

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

Tangible returns



Adopting smart city technologies and IoT solutions can solve real-world challenges and dramatically **improve quality of life** within local communities. Pollution reduction, enhanced public safety, improved air quality, and increased access to public services are just some of the obvious benefits that allow citizens to thrive.

These technologies also demonstrate a robust **return on investment**. We're creating places that are easier and more efficient to maintain, bringing data gathering and analytics together and managing it all from one central control room. This intelligent integrated monitoring delivers significant **operational efficiencies** and **cost savings**.

Smart Cities also create a solid foundation for sustainable economic growth and prosperity. Stronger, faster, more reliable networks and the smarter technologies that they connect, will attract businesses and investment, as well as foster innovation, entrepreneurship, and job creation.

What's more, the environmental benefits are endless. Efficient monitoring of a city and its data allows for opportunities to reduce carbon emissions, energy consumption and pollution across the board.

Benefit overview

- Streamlining and improving services
- Integration and interoperability of existing and new systems and services
- Safeguarding and security of public spaces and environments
- Bridging the digital divide – skill gap and attractiveness to invest, live, visit
- Securing investment and funding
- Improving sustainability and meeting Net Zero targets



Everything managed from one place

A centralised control room is the heartbeat of any Smart City. From here, we can collect, analyse and harness data that allows us to streamline services and transform the way a city operates.

Safety and security

Enhancing public safety and security is a key advantage of this centralised approach. We can tap into your existing CCTV systems to improve traffic flow, reducing the risk of accidents and collisions. We can raise streetlighting on any given street if there is an incident or if the authorities are looking for a specific person. We can even manage crowd safety by assessing how many people are in an area at any given time.

Advanced analytics gives you the situational awareness to improve things across the board. And if we can also improve the network infrastructure within a city, and therefore the connectivity, we can add more devices and sensors and ultimately offer more solutions.



Funding applications

Another key benefit of advanced analytics is the ability to reinforce and amplify any bids or applications for funding.

From counting the number of people passing vacant retail units to assessing the most appropriate routes for cycle lanes, we can provide the information you require to build your case. And, ultimately, raise or repurpose the money you need to develop areas or services within your city.



Added value

Implementing a centralised control room opens up a world of possibilities. Very often, clients want to install a specific system for a specific purpose, but in most cases, this also creates opportunities for us to deliver a number of other services and functions.

For example, the technology involved with population counting means we could also provide public Wi-Fi as a by-product. Opportunities for added value like this are endless, and having a centralised control room in place allows you to take advantage of them at any stage.

Single Data Repository

We understand that having multiple services within a Public Authority can create barriers and challenges. Very often, the required data exists but is sitting in silos.

Managing multiple stakeholders is a big part of what we do, and once those lines of communication are open, we can get a holistic view of the full potential of a city and what might be achievable.

For example, in an educational setting, we can use fresh air, lighting and more to keep people alert and engaged. Within hospitals, there may be data about the types of injuries people suffer and when, but we can correlate it against lighting, flooding, times of day, number of people in the city centre, and so on.

And all of this can be managed, analysed, and assessed from one central control room.

End-to-end expertise

North is uniquely positioned to manage and deliver every single aspect of a Smart City deployment – infrastructure design and network delivery, IoT device implementation and configuration, control room management and support.

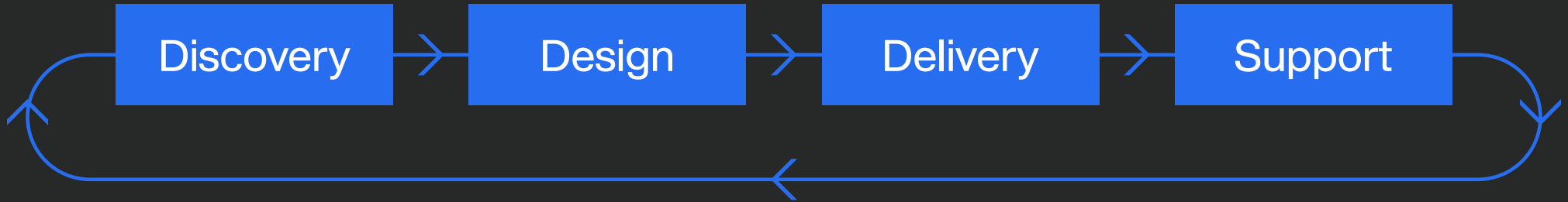
We have industry-leading expertise across every department and can fit every piece of the puzzle together, always to the highest standard. And, at each stage, we bring innovation to the table. No challenge is too difficult, nor environment too complex.

We also have vast experience of working with complex stakeholder groups, getting the best from multiple partners, and minimising disruption during delivery.

We're proud of our superior understanding of the analytics platforms that we implement. We have partnership contracts with the world's top-tier, most highly sought-after technology vendors and we know how to get the best out of their products.



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.

Unrivalled experience



Futureproofing Scotland's capital

The City of Edinburgh Council

North designed and delivered a revolutionary new Smart City Operations Centre for the City of Edinburgh Council – as part of a £2.6m contract funded by the Council and the European Regional Development Fund (ERDF).

Replacing an outdated control centre that was no longer fit-for-purpose, the new Operations Centre saw the provision of high-definition CCTV cameras, expanded security coverage, and the introduction of advanced analytics and artificial intelligence. Altogether, this provides situational awareness that can predict or pinpoint new and existing threats, helping the Council respond to emergencies and manage large-scale events like Edinburgh's Hogmanay celebrations and August Festivals.



The facility also integrates other technologies that are helping to improve traffic flow, transport infrastructure and city planning – subsequently improving the city's collective carbon footprint. Intelligent sensor data, transmitted using North's IoT Scotland network and smart waste and intelligent housing solutions, are also being used to drive improvements across the city.

◆ EDINBURGH ◆
THE CITY OF EDINBURGH COUNCIL

Safer, greener, cleaner London streets

Hammersmith & Fulham Council



North was appointed to transform Hammersmith & Fulham Council's Public Space CCTV operations in 2020, including the roll-out of a cutting-edge control centre and smart CCTV cameras across Hammersmith & Fulham (H&F).

Through IoT, the Council has centralised the management of remote environments using various alarms and alerts, not only for the CCTV aspects but work is underway to consider its wider use across the Council to help drive down costs and raise efficiencies.

CCTV analytics will allow H&F to make informed decisions on crime prevention, improve public spaces, and engage with visitors and improve accessibility. Including integration with private sector entities such as football stadiums and shopping centres to support decisions on people flow and crowd control.

H&F's significant investment is paving the way to becoming a gold-standard Operations Centre and the most efficient, effective and forward-thinking CCTV system in London. So much so, that H&F now provides coverage for neighbouring boroughs including Kensington & Chelsea – all fully integrated and controlled from their own Operations Centre. This is a highly cost-effective solution for their neighbours and a very welcome revenue stream for H&F.

h&f
hammersmith & fulham

Shining a light on Aberdeen

Aberdeen City Council

North played a pivotal role in delivering an intelligent street lighting project for Aberdeen City Council, reducing costs and unlocking sustainability and decarbonisation improvements across the city.

The project saw a state-of-the-art IoT solution installed to manage and monitor more than 37,000 street lighting units remotely, enhancing the city's lighting provision, whilst simultaneously helping to create a greener and safer city for the people of Aberdeen.

There is now no need for the manual process of checking lights, significantly reducing travel costs and carbon emissions, while custom dimming profiles can be used to manage the level of energy required at any given time and automated fault reporting has allowed for more efficient maintenance.

The project formed part of the Net Zero Aberdeen Route Map, a city-wide approach to reducing carbon emissions, and won the Sustainable Customer Project of the Year category at the CRN Tech Impact Awards.



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