



ICT Strategy

2020 - 2023



County Durham and Darlington
Fire and Rescue Service

Safest People, Safest Places

ICT Strategy

1. Foreword

The Information and Communications Technology (ICT) strategy defines how technology will support County Durham and Darlington Fire and Rescue Service in achieving the vision to have the Safest People, Safest Places.

The Services' strategic priorities are detailed in our Integrated Risk Management Plan (IRMP) which explains CDDFRS' vision of "Safest People, Safest Places" and how we plan to achieve this. The ICT Strategy is part of the suite of documents which support the delivery of the IRMP and explain the digital transformational steps to support the achievement of our vision.

The ICT Strategy covers the areas of Service Desk and Support, Infrastructure Management and Security (Local and Wide Area Networks, Mobile Data, Server Hardware), Telephony / Radio / Alerter Support, Provision and Support for a wide range of desktop, laptop and tablet hardware, Software Application Deployment and Business Continuity / Disaster Recovery Management.

The Government's fire reform agenda set a clear direction of travel to ensure services are efficient, accountable, transparent and reflective of the diverse communities they serve. This is underpinned by Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS) regime and the Fire and Rescue National Framework for England that sets out the overall strategic direction for fire and rescue authorities. Following our first inspection, in aspects of efficiency the Service was graded as 'Good', however, ICT represents a significant investment on behalf of the Combined Fire Authority, it is therefore crucial that efficiency remains at the heart of our investments whilst also providing our employees with the most effective and innovative solutions to support them in helping to achieve our vision.

We expect the Authority to continue to face a very challenging financial climate going forward, as further cuts to government funding are made. This is exacerbated by restrictions on the amount of income we can raise through council tax and predictions of significant pressures on spending.

Furthermore, the unexpected nature of the COVID-19 pandemic has seen the Service make significant changes in the way we operate to keep our staff safe whilst continuing to deliver services to our communities. The service has needed to adapt quickly, and technology plays a key role in assisting our employees to achieve new ways of working. As we look to the future it's important that we do not pause with the delivery of our People agenda and we ensure we can find innovative solutions to engage with our workforce. The next three years are therefore likely to require further innovation and changes to the way we operate and deliver our services and the ICT Strategy will help us achieve this.

2. Where are we now?

In recent years despite the challenging reductions in funding from central government, investment in ICT within the service has remained strong. Key improvements have been made in resilient infrastructure, software and security systems to protect service resources and data. In particular, the move to cloud-based technologies has not only improved ways of working for all personnel but significantly improved resilience and allowed access to flexible working for all staff.

The Service has increased awareness of the threats to information assets across the workforce and has a rigorous audit regime in place to ensure standards across all aspects of ICT are continually being challenged.

Although there have been delays in the expected rollout of the Emergency Services Network (ESN), the Service has been actively involved in delivering Proof of Concepts (PoC) for ESN Connect and ESN Connect Critical, two essential elements of the ESN network which will replace the current Airwave solution. The Service is, therefore, well placed to assist the Home Office Emergency Services Mobile Communications Programme (ESMCP) with technical issues in delivering ESN.

A 10-year capital replacement programme exists to ensure major investments are managed over the medium term. This also ensures that the whole ICT estate can be managed in accordance with emerging technologies to fully exploit current capabilities.

Throughout 2020 we have been required to deal with COVID-19, the full effects of which may not yet have been realised. This has resulted in a significant reliance upon modern, secure ICT infrastructure, software and hardware. Supporting employees to work remotely, improving how front-line firefighters can access service resources whilst out in the field of operations and supporting Combined Fire Authority governance when it is difficult for those charged with overseeing governance to come together.

Investment in ICT requires constant review. There is a balance between achieving value for money from the lifetime of an asset to enabling the workforce to make use of ICT and current capabilities to deliver enhanced services or achieve improved productivity.

The whole life cycle of the asset is be considered at the procurement stage in order to deliver value for money from the most economically advantageous tender.

3. Key Drivers

The key drivers that have set the direction of this strategy are:

- Changes in technological capability which may positively influence ways of working and improve the efficiency and / or delivery of services to our communities.
- HMICFRS – Ensure we address areas of improvement relating to efficiency, effectiveness and people from our inspection and aim to become an ‘outstanding’ fire and rescue service.
- National Infrastructure Programmes such as the cessation of the Public Switched Telephone Network (PSTN)
- The Emergency Services Mobile Communications Programme (ESMCP) and opportunities to exploit advances in control room and mobilisation technologies.
- Government, Sector and Industry best practice for maintaining secure infrastructure and data assets (National Cyber Security Centre, working in line with ISO 27001 for information security).
- Actively seeking and supporting collaboration opportunities with key partners in the interests of efficiency, effectiveness or reducing risk to our communities and staff.
- Our values: Professional, Innovative and Effective describes the service our customers should expect to receive.
- A statutory duty to collaborate with Police and Ambulance as stated in the Policing and Crime Act 2017.

4. Our Values and Behaviours

PROFESSIONAL



INNOVATIVE



EFFECTIVE



PIE represents our values and describes the service our customers should expect. This element of 'being the best' is the external key message around the service we provide

The 4C's communicates the behaviours we expect all our people to display at work. Delivery of the 4 C's across the service will lead to an organisation which displays the PIE values and fulfils the organisation aim of 'being the best'



How We Approach **Challenges**

Our people should approach challenges with flexibility, enthusiasm, motivation, passion, determination & resilience.

How We **Conduct** Ourselves

Our people should conduct themselves in an honest, trustworthy, reliable, accountable, consistent and respectful manner.

How We **Collaborate**

Our people should be approachable, supportive, encouraging, inclusive and show that they value their own development and the development of others when collaborating and working with others.

How We Drive **Change** Across the Organisation to Make a Difference

Our people should drive change by being creative, resourceful, courageous, original, clear and focused.

5. Key Principles

To support the delivery of this strategy we have adopted underpinning principles that we will apply to our improvement objectives.

These are as follows:

- We will give our staff the most efficient and effective technological hardware and software to allow our staff to perform to their very best and help us achieve our aim of being the best fire and rescue service in the UK;
- We understand the importance of investing in staff awareness in relation to infrastructure, systems and data security and believe that this will benefit employees both inside and outside of the workplace;
- We trust our people to make decisions and will give them the skills, knowledge and access to appropriate information in order to do this effectively;
- We will ensure there is a clear route for staff to highlight new improvement and innovation opportunities to our Service;
- We will embrace a culture of continuous improvement leading to continuous organisational improvement that translates into better service for the public;
- We understand the importance of engaging staff in decisions and will listen and involve our people in improving the technologies that we deploy and therefore improve our service;
- We trust our staff to uphold the highest standards of personal and professional conduct including openness, honesty and integrity;
- As leaders we will lead by example, articulating the values, behaviours and standards expected of the Service outlined in our frameworks.

6. Where do we want to be?

We want to be able to clearly demonstrate that we are aiming to 'be the best' fire and rescue service by positively embracing new technology, striving to exploit best practice within and outside of the fire sector to achieve sustained service development and improvement that translates into better service for the public.

Our ICT Strategy sets out a framework to ensure the service maintains pace with a rapidly changing environment. The strategy details an ambitious three-year programme, but it should keep Durham and Darlington Fire and Rescue Service at the forefront of technological change. The focus is on building upon our strong foundations of accessing cloud-based technology, driving efficiency through investing in new technologies and further hardening the organisations security position.

- By 2023, compliance will have been achieved and implemented for the forthcoming Emergency Services Network standards.
- The user desktop environment throughout the service estate will have been refreshed with current technology.
- Broader and greater awareness of necessary security standards will be recognisable from all staff perspectives.
- Ways of working will be modernised through cloud-based investment, improving accessibility and availability, remotely.
- The data environment will be further cleansed and restructured in order to maximise the data assets of the Service.
- Software and hardware revisions will follow the cloud-based investments ensuring rationalisation of licencing, reducing hardware spend and improving the resilience through revised disaster recovery arrangements.
- Remote working to the desktop environment will be a more seamless transaction than at present.

7. How do we get there, our key objectives?

Security

The Service needs to be well prepared for all prevalent and forthcoming risks in the information technology and cyber security field. Employees need to be well informed of risks and the role they can play in defending against such attacks.

We will further develop the role of ICT within the Protective Security Group (PSG) in identifying areas for improvement across each of the strands identified by the Centre for the Protection of National Infrastructure (CPNI). We will invest in the skills and knowledge of our people, in terms of both security expertise but also knowledge and awareness. The Service will aim to achieve cyber essentials accreditation. Furthermore, we will develop and invest in technologies to pro-actively manage security risks to the Service and closely monitor national guidance.

Collaboration with ESMCP

Transition to ESN will be mandatory and will need to be undertaken before decommissioning of Airwave. Collaborating with Home Office to assist with the development of ESN incremental products will ease Service transition onto ESN.

The Service will continue to explore incremental technologies from ESMCP and consider adoption as part of the service ICT strategy. We will build on the early deployment of ESN connect as this provides the Service with higher priority data access to devices in the field of operations. Accreditation for ESN Connect Essential and ESN Connect Critical products will be maintained and compliance with other ESN security standards will be introduced in the coming years.

The Service will be upgrading Control room systems, firstly, to exploit new efficient and more highly resilient technologies, but furthermore, to become ESN compliant prior to the proposed transition.

The Service will also procure and configure new hardware (for example MDTs) and software to prepare operational vehicles for ESN communications in conjunction with Assets and Assurance.

Cloud-based Transition

Migrating to cloud-based technologies will reduce licencing requirements and modernising the ICT environment will reduce duplication of effort and improve access to data assets by all personnel.

The ICT team will, in conjunction with service stakeholders, reduce the dependency on legacy systems which are no longer supported (such as Infopath) and migrate them to cloud-based technologies which are continually developed and upgraded. We will continue to improve the use of the Service's Microsoft enterprise agreement using the Office 365 platform to replace equivalent technologies. We will continue to improve remote working, simplifying remote access technologies whilst also increasing security. In the coming year the ICT team will complete the transition to SharePoint 365 encouraging teams to manage their own environments and access permissions.

Communications Infrastructure

Infrastructure and technologies are continuing to develop and present both challenges and opportunities. Where infrastructure is being developed on a national level the Service must prepare for future compliance.

The ICT team, in conjunction with service stakeholders, will determine the reliance on and impact of the PSTN switch-off due in 2025. This is a significant national infrastructure project which will result in a change in the technological solution for delivering telephony of the future. The Service will also assess the current Wide Area Network provision and research the latest technologies to ensure that they are included in future procurements to support the ICT roadmap. We will explore and trial "Bring Your Own Device" (BOYD) with key personnel with a view to reducing Shadow IT and reduce long term hardware costs. We will upgrade mobile devices and technologies to support cloud-based solutions with cost-effective products. The Service's current wireless solution will be upgraded across the estate with cloud-based technologies to provide enhanced security, greater coverage at all sites making it accessible to all staff and visitors regardless of the connecting device.

Resilience by design

Making the most of hosted solutions to deliver infrastructure services and procuring cloud-based disaster recovery will reduce the long-term investment that would be required to maintain centrally placed infrastructure and disaster recovery hardware.

We will assess current ICT Infrastructure and disaster recovery (DR) services and research appropriate hosted technologies. The Service will aim to procure combined hosted infrastructure and DR services to reduce ongoing hardware demand. This will then lead to the migration and restructure of centralised infrastructure and DR services. Finally, we will be able to decommission physical ICT infrastructure and existing DR hardware, reducing the need for on-site hardware, maintenance and associated server room costs.

8. Measuring Progress

We will monitor progress of this strategy in the following ways:



Key Performance Indicators (KPI's)

We will develop a suite of appropriate Key Performance Indicators to help measure the progress of this strategy.



Reporting Progress

Scrutiny of progress against the strategy will be undertaken by the Performance and Programme Board (PPB) who will receive regular reports from the Head of People and Organisational Development, in their role as strategic lead for People.



Measuring Perceptions/ Sense Checking

We will regularly ask for feedback from our staff to inform us of our progress on elements with the People Strategy through our engagement sessions, range of leadership forums and through meetings with our representative bodies. Their opinions and suggestions will be used to influence improvement.



Keeping it current

We will provide a progress report to the relevant committees and update the action plan annually to ensure it remains current.

