



HUMBERSIDE
Fire & Rescue Service

Digital Services - Digital and Data Plan 2022 - 2025



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Introduction

Humberside Fire and Rescue Service (HFRS) uses digital technology, in a variety of ways to support its mission statement within the HFRS Strategic Plan. From mobilising resources to operational incidents, making sure that our front-line staff have all the data and intelligence they need, or using business systems to manage and control our resources, technology continues to reach every part of our Service.

HFRS remains committed to providing services that ensure we will support and protect our communities, and successfully deliver as an organisation, along with valuing the people we employ, and to continue to manage effectively and efficiently.

The term digital technology is used to describe the use of digital resources to effectively find, analyse, create, communicate, and use information in a digital context. This includes the use of web tools, digital media tools, programming tools and software applications. Any system is said to be using digital technology if it uses parts that contain or make use of binary or digital logic, and this can be in hardware or software. Previously, what was always known as computer systems, IT, or ICT, is now encompassed by the description 'digital technology'.

The Digital Services industry is a fast-moving, constantly evolving environment, where the pace of change in technology has accelerated significantly in recent years. This has led to a widespread increase in the use of personal devices to access data, information, and services in the workplace. HFRS needs to embrace and exploit this technical revolution which has evolved and will continue to progress. In doing so, we can ensure our Service makes best use of any, and all available data and information, to improve our services to the public, and to aid our joint working with public sector partners.

This strategy will paint a vision of how the Service aims to use technology in the future. It will describe a set of principles that will be worked to in order to ensure that the vision becomes reality; it will detail the activities the Digital Services team will undertake to work towards the vision, and it will outline how the Service can use digital technology to help the Service achieve the aims of its Strategic Plan.

The Challenge

In April 2021, HFRS launched its latest Strategic Plan, highlighting how it intends to meet the Fire and Rescue National Framework for England, which sets out the Government's expectations and responsibilities for fire and rescue services.

The Plan consists of four strategic aims that underpin everything that the Service does for the people of Humberside. They are:



**What we must
do well**



**How we support our
communities**



**We value and support
the people we employ**



**We efficiently manage
the Service**

The Digital Services section contributes and supports these aims by reducing Organisational risk through the creation of standardised, resilient, and integrated systems, with simplified processes. Whilst ensuring we are compliant and consistent with current and future legislation. These are delivered by cost-effective Digital services and solutions, which are focused on the needs and objectives of the Service.

The Digital Services Strategy 2015-2018 was focused on modernising the Digital Services infrastructure. In short, HFRS had an ageing, unsuitable and insecure Digital architecture, with inconsistent support mechanisms that would not support the future needs of the Service.

The Digital Services Strategy 2018-2021 aimed to implement evolving digital technologies to allow staff to embrace new ways of working, whilst maintaining Infrastructure and security activities.

To achieve this, four connected work streams were delivered:

1. Unified collaboration
2. Unified communications
3. Connected Workforce
4. ECHCRC Collaboration

The two previous strategies have ensured that HFRS has a solid foundation of modern, fit for purpose systems and technologies, which would be up to the task of delivering against the strategic aims of the HFRS Strategic Plan. The challenge for the Digital Services section is to ensure that the digital solutions provided to the Service continue to be appropriate, reliable, and useful, to enable all staff to reduce risk in the communities of Humberside.

In order to meet this challenge, the Digital Services section will ensure that the people who use technology are at the heart of the digital transformation of the Service. Our staff should be digitally literate and be equipped to embrace new ways of working. HFRS internal processes should evolve to adopt digital best practice, and the Service should be prepared to change them radically to promote and foster efficiency.

Our Digital Principles



Access from anywhere with any device

The Digital Services section will ensure that all digital solutions and systems are device independent. Regardless of whether staff are sitting at a desk in an office, using a tablet while working from home, or on a smartphone while out and about, systems should work for them.



Innovation and responsiveness built in

The Digital Services section will look to challenge the status quo when delivering digital solutions. All corporate processes across HFRS will be examined from start to finish to determine how they can be simplified, and the duplication of data can be prevented. Mobile applications will be responsive and effortless to use, to ensure that staff can complete their tasks efficiently.



Digital-first

'Digital first' or 'Digital by default' is a commitment from the UK government to provide as many public services as possible through electronic means. HFRS will enable the Humberside public to access our services online. Internally, the Digital Services section will work to transform all business processes so that they can be completed digitally and continue to phase out paper-based systems.



User-centric solutions

Digital solutions will aspire to be intuitive, straightforward and require minimal training. Users and teams will be consulted when designing solutions to ensure that the finished product meets their needs. Agile techniques will be employed to embed continuous improvement of all systems.



Making data accurate and accessible

The Digital Services section will work with teams across the service to ensure that Power BI, Dashboards, and other reporting systems have a robust streamlining data collection process to make key datasets accurate and accessible.



Microsoft-first

HFRS will utilise Microsoft technology for as many digital solutions as possible. Other software vendors will be used if their offering is considered more suited to the needs of the Service, but only after all Microsoft solutions have been assessed and discounted.



Cyber Security is essential

The Digital Services section will ensure that the Digital Services infrastructure remains safe and secure from hackers and other cyber criminals, and is compliant with [Emergency Services Network \(ESN\)](#) security standards and processes. Ensuring our infrastructure is resilient and kept up to date with current legislation and compliance. Maximising accessibility and suitability for HFRS colleagues.

Outcome drivers 2022-23

Below outlines the overarching activities which the HFRS Digital Services section will undertake to deliver the Plan.

Objectives

- Plan and deliver projects that will rationalise and integrate HFRS applications.
- After successfully rolling out electronic protective marking of all email we will move to roll out to all documentation produced by the Service.
- Improve end user experience of technology through better training and guidance.
- Continue to develop our infrastructure to ensure we have a robust and secure environment.
- Enable all Service mobile phones to be enrolled onto Mobile Device Management (MDM).
- Upgrade to the Home Fire Safety Visit System a robust collaborative system for the management of Public Safety, Business Safety, and Operation Risk data and information.
- Rationalise the way HFRS colleagues telecommunicate to make it more streamlined.
- Upgrade Mobile Data Terminal (MDT) device endpoints to replace existing obsolete equipment.
- Implement a Radio Frequency Identification (RFID) Asset Tracking System to enable assets to be tracked and tested more effectively and efficiently.
- Enable all HFRS staff to have Office 365 access.
- ESN
 - i) Explore the potential provided by ESN to provide a resilient and secure mobile data broadband network with EE 4G/LTE providing the coverage Backbone.
 - ii) Collaboration between HFRS, Herts FRS, Lincs FR and Norfolk FRS to enable early adoption of ESN data services (ESN Connect).
 - iii) Installation of a 4G/LTE vehicle router in selected “red fleet” appliances to provide a secure mobile data connection between HFRS / ECHCRC Data Centre and a vehicle data terminal for use with ESN compatible devices.
 - iv) Explore opportunities presented by vehicle router to provide a mobile Wi-Fi hotspot for connection between the vehicle and non-ESN data devices.
 - v) Provide opportunity to deploy a commercial SIM alongside any ESN SIM to enable the Digital Services team to monitor and compare signal strength and performance across our operational area, whilst benefitting from any insight gained through automatic network failover between multiple mobile operators.
 - vi) Enable ESN devices to be enrolled onto ESN AirWatch MDM.
 - vii) Ensure the provision of existing Airwave facilities until transition to ESN.
- Collaboration between HFRS and Humberside Police to deliver a shared Cloud Service.
- Replacement programme roadmap for software and hardware to ensure the Service is flexible enough react to emerging trends.
- Review and collate Power BI dashboards to ensure the provision is concise, accurate and relevant for key decision makers.
- Continue to enhance existing systems in line with the replacement roadmap to streamline user experience.

- Model risk impact on Community Risk Management Plan (CRMP) options to support the Operational Efficiency Programme.
- Support NFCC national workstreams, specifically the national risk model and Home Fire Safety Visit referral systems.
- Utilise Microsoft 365 tools available to the Service to enhance user experience.

Expected Outcomes

- Implement 360 Protection to enable protective marking of all documentation.
- The HFRS Microsoft Agreement was renewed on 31 December 2023.
- All staff are confident in using technology and are aware of their responsibilities for its appropriate use.
- Microsoft Power BI will be updated with accurate and timely information to ensure reporting is centralised and delivers a “one version of the truth” for performance management and decision making.
- Upgrade to Home Fire Safety Visits will be rolled out across the organisation to enable a more dynamic and digitally enabled public safety service to the community.
- All users of the Home Fire Safety Visit software will be issued with new tablet devices, which will be the appropriate digital tool for this and other software systems.
- New Mobile Tablets are to be rolled out to all appliances. This will allow operational staff to work more effectively whilst away from their base station location, and whilst in attendance on the incident ground. This hardware will include all the apps currently available on the CAT Phone devices, where [CESG](#) requirements can be met.
- HFRS telephony is delivered via modern internet-enabled technology to increase resilience (replacing analogue telephony) – tie in with telecoms above.
- A cloud service will be rolled out as a shared service for HFRS and Humberside Police. This will in turn open doors for future collaboration and sharing.
- Replace analogue telephone systems with new IP protocol solution.
- All mobile phones will be migrated across to the MobileIron software solution. This will ensure the devices can be centrally managed, and blocked if lost or stolen, whilst maintaining end to end encryption.
- Internet speeds and Wi-Fi capability to be reviewed by location to ensure we have full coverage and appropriate internet speeds at each site.
- A modern Hydrants management system to provide faster and more efficient data to be recorded and shared.
- Detail on ESN Vehicles
 - i) HFRS will have deployed a vehicle solution of ESN accredited hardware to ensure we are fully prepared to exploit any benefits provided by early adoption of ESN data products.
 - ii) Early access to the ESN network will allow HFRS to secure greater confidence in ESN coverage
 - iii) Increase eco system of ESN compatible devices
 - iv) Promote mobile working within operational and business areas of the Service
 - v) Introduce an enabling infrastructure and hardware to be best placed to provide a more consistent level of connectivity for operational staff in and around fire vehicles and providing them with the tools and applications that help them to respond faster and more efficiently to emergency events,

- whilst improving safety for our staff and our communities.
- vi) Ensure the provision of existing Airwave facilities until transition to ESN
- Slick presentation of Operational Efficiency Options to support the CRMP.
- Launch of a streamlined PDR recording system using Microsoft PowerApps.

Projects and Outcomes 2024-25

Below outlines the overarching activities that the HFRS Digital Services section will undertake to deliver the Plan.

Objectives

- The HFRS Digital Services infrastructure will be further developed to enhance core services using 'cloud' solutions and Software as a Service (SaaS).
- Maintain a Digital Services asset upgrade and replacement programme, considering changes within the Service. HFRS will transition from the Airwave communications network to the Emergency Services Network (ESN), and ensure the provision of existing Airwave facilities until transition to ESN
- The Digital Solutions section will establish the mechanisms and resources needed to manage the support of all HFRS telecommunications systems (fixed and mobile telephony, ESN devices, radios, and mobile data terminals).
- Continue to develop Digital Services projects that enhance and renew HFRS business applications, in line with Service priorities.
- The HFRS Digital Services section will positively collaborate with Humberside Police and neighboring partners in the region, in terms of data sharing.
- Utilise the ESRI mapping provision more by implementing a range of focused apps.
- Employ data science techniques through artificial intelligence and big data to gain statistically significant insights from HFRS data.
- Review upgrade on Home Fire Safety Visit Software and any user feedback.
- Provide more data regularly to the public by enhancing the HFRS open data portal.
- Aim to digitalise all inefficient paper-based processes.
- Provide the public and businesses more online communication channels.
- Ensure that Application Programming Interfaces (APIs) are utilised in hosted systems to aid with the streamlining of accurate information.
- Ensure that ICT provision continues to support the strategic plans of the Service.

Expected Outcomes

- The aim would be by the end of 2025 at least 75% of our systems will be cloud based.
- All HFRS applications, systems and data will be delivered by appropriate Microsoft 'cloud' solutions, such as Office 365, Azure, PowerBi, and other vendor SaaS systems.
- Based on the rollout of the Asset Management system this will enable us to maintain a Digital Service Asset Upgrade and Replacement Programme effectively for this period.
- All HFRS Digital Services endpoints, server and network infrastructure will be replaced with modern equipment, as appropriate.
- HFRS critical mobile communications and operational data will be delivered using ESN compatible mobile devices over the Emergency Services Network.

- The support of all HFRS critical communications devices and systems are managed by the Digital Solutions section.
- HFRS business applications are provided using the most modern and secure technology, preferably using the 'cloud'.
- HFRS and Humberside Police technical teams work in collaboration to deliver an efficient, effective, and economical ICT infrastructure.
- The Digital Services section and the technical infrastructure it manages, develops, and designs, is an enabler for organisational efficiency, productivity, and improvement in service delivery effectiveness.
- ESRI apps launched for Fire Fatality Profile, Risk Management and Mobile Focused Intelimap.
- Statistically significant insights from HFRS data to help support its current modelling around Fire Fatality Profile, Risk Based Inspection Programme and Operational Efficiency Programme.
- A refined Home Fire Safety Visit system that builds upon the user feedback collected.
- Data shared with the public via the open data site for Prevention, Protection and Risk.
- Digital systems for current HR processes including establishment tracking, sickness, recruitment and exit interviews.
- Online communication channels for the public and businesses including Chat Bots for easy Q and A, online requests for non-emergency services and online reporting of community risks.
- One version of the truth for personnel data, utilising the APIs for FireWatch, pdrPro and Fire Service Rota to provide one shared dataset.

Key Enablers

This strategy cannot be delivered in isolation, and it will require a full range of activities to support the successful implementation of the plans moving forward. The previous Digital Services Strategies have laid the foundations to enable this plan and deliver the digital vision for the Service.

Digital Services Section

The structure of the Digital Services section has developed since 2015 and the restructure of 2017 has further enhanced the skills and resources of the technical teams. As digital technology evolves, the skills and resources required to support it will need to match the pace of change. It is therefore inevitable that the department will change over time to meet the needs of the Service, and this strategy will guide any changes that take place.

The Digital Services section has worked hard to ensure that the right supplier partnerships are in place to make sure the Digital Services section can deliver. Strategic suppliers and collaborative partners have been factored in the digital strategy, and they will work with the Digital Services section to make the digital vision a reality.

Organisational Engagement

The Digital Services team will work closely with the organisation and key stakeholders to make sure that Digital Services is meeting Service requirements. Customer service mechanisms, including service

levels and standards, will enable continuous improvement in the Digital Services and this will help the Digital Services section to deliver the exact services that HFRS needs.

Quality and Standards

Quality should be at the heart of everything that happens in HFRS, and Digital Services embraces that approach. Digital Services will use the principles of continuous improvement to ensure HFRS digital and technical developments will always be fit-for-purpose and will be compliant with the appropriate cyber-security standards. The mandating of specific industry open standards will make our Digital Service solutions fully interoperable and enable these solutions to be shared and scaled across organisational boundaries. Using industry standards will also allow HFRS solutions to interface with other systems and technologies more effectively.

Building upon the success of other standards-based initiatives, the Digital Services section will seek to adopt the principles of the International Standard for Information Security ([ISO27001](#)). This will ensure that the confidentiality, integrity and availability of services and systems we commission, are managed, maintained, and assured to the highest level.