



**HAMPSHIRE  
FIRE AND  
RESCUE  
AUTHORITY**

Purpose: Approval

Date: 5 December 2018

Title: **Mobile Data Terminal (MDT) Replacement**

Report of Chief Fire Officer

### SUMMARY

1. Mobile Data Terminals (MDT) provide 'critical' communications between Fire Control and appliances. Our existing provision across the fleet is aged and requires replacement, to continue to make full use of new technology and enable an efficient and effective response to emergency incidents.
2. The purpose of this report is to seek formal approval to fund the supply, fitment and training required to replace MDT in HFRS' pumping appliances and supply Bridge Devices in our special appliances. A total of £800,000 is required to achieve this.

### BACKGROUND

3. MDT provide 'critical' communications between Fire Control and appliances which includes mobilising vehicles to incidents, status updates, risk information, messaging and crew accountability.
4. HFRS currently have 155 MDT within frontline fire engine vehicle cabs. Our special appliances currently do not have any MDT provision.
5. HFRS' MDT are now ten years old and require consistent maintenance, which has a financial cost of components and an operational impact as units are withdrawn temporarily to fix.
6. The current hardware can no longer accept up to date software developments and are only being maintained with the current software.

## MDT SOFTWARE

7. The mobilising software used on our MDT will not support the new Emergency Services Network (ESN), due to be implemented in 2020. The ESN will be the Emergency Services primary method of operational communication, when implemented. It is crucial our systems can operate with the ESN.
8. After January 2020 Microsoft will no longer support the Windows 7 operating system. This provides the appropriate security for these devices to work safely and securely within our own security protocols.
9. Attribute Based Response (ABR) is a future development that will enable HFRS to have more control of the vehicles and people which are deployed to an operational incident. ABR will make HFRS more operationally efficient and effective. The ABR project is under development with our Networked Fire Services Partnership (NFSP) colleagues. To use this new method of deploying resources, more up to date software is required.

## BRIDGE DEVICES

10. Bridge Devices are less expensive devices providing only mobilising, incident updates and crew accountability functionality.
11. The safety and accountability of crews on specialist vehicles would be enhanced with the functionality of Bridge Devices.

## NEW MDT HARDWARE

12. New MDT provide increased reliability and capacity for new software.
13. HFRS have carried out extensive MDT research with our NFSP partners to ensure that the most effective provision has been identified and fully compatible with the Fire Control system used across the NFSP. The devices identified have the ability to capitalise on both ESN and ABR developments in future years.
14. Dorset and Wiltshire (D&W) FRS and Devon and Somerset (D&S) FRS have purchased MDT and Bridge Devices following this research. Both services are undertaking the implementation phase of the replacement, which is planned to take 6 months.
15. The proposed MDT are demountable units, which means they can be removed from the vehicle cab for use and can be changed between appliances. The benefit realisation is 40 less new MDT units are required to cover the fleet, as our spare appliances will not need to be fitted.

## IMPLEMENTATION

16. The implementation plan will be closely aligned to our ICT team. The development of our digital effectiveness approach within HFRS is helping to join and support the operational systems and equipment with our IT strategy. This proposal contains some IT staff provision to support this integration and implementation.
17. The physical implementation will be managed by our Fleet Maintenance team using a specialist installer.
18. Training will be required to our operational staff. Provision for training and the management of the implementation is contained within this proposal.
19. Future replacement provision will be included within the strategic equipment replacement plan which is currently being finalised. This is being led and will be managed by HFRS' Head of Operational Assets.
20. If approved, we expect to start the implementation plan to start in January 2019. We expect this to be completed by October 2019. Our collaborative approach to procurement may delay this date for implementation.

## SUPPORTING OUR SERVICE PLAN AND PRIORITIES

21. Providing new rugged tablet devices as MDT in our pumping appliances and a Bridge Device in our special appliances supports the 'Responding to Incidents' Service Priority, the aim of which is to continue to improve the way we respond to and support incidents.
22. It supports our ambition for "all of our resources to be flexible, adaptable and state-of-the-art to minimise the impact of incidents and the number of deaths and injuries across the county".
23. These devices will enhance our ability to manage the safety of our operational teams.
24. The proposal supports the 'Technology' Service Priority in terms of improving the technology we deploy to increase quality, agility and reduce cost across our business, establishing it as a driver for innovation and improvement.

## CONSULTATION

25. We have engaged with HFRS operational crews. This engagement has informed the user requirements set for this hardware. Our crews also continue to inform the software options we are developing with NFSP partners.

## COLLABORATION

26. We have jointly researched the MDT market with our NFSP partners. We will attempt to procure devices using a collaborative procurement framework.
27. The procurement of the same devices as D&SFRS and D&WFERS will allow further operational alignment and better working arrangements across the NFSP area.
28. We are connected to a development of a national FRS procurement exercise for MDT and we will continue to engage with this development to ensure the most effective and efficient options are delivered.

## RESOURCE IMPLICATIONS

29. Funding is requested for £800,000 for the procurement of the devices, additional staff capacity within IT and operations to manage the implementation and training requirement for all users. It is proposed to cover this from the HFRS Capital Payments Reserve.
30. The funding is split between physical costs of £700,000 for hardware and fitment. And staffing costs of £100,000 to project manage, integrate with our ICT systems and train HFRS teams.
31. It is estimated that new devices will have a 7-year life span. Future replacement and funding will be captured within our strategic equipment asset plan.

## ENVIRONMENTAL AND SUSTAINABILITY IMPACT ASSESSMENT

32. An impact assessment has been made.
33. The environmental impact of waste from old units has been identified. To minimise the negative impacts, the disposal of items associated with the fitment of MDT will be carried out by a company which is fully compliant with the Waste Electrical and Electronic Equipment Directive (WEEE Directive.).

## LEGAL IMPLICATIONS

34. Procurement rules will be adhered to and we are currently working with the IT procurement team at HCC to advise on the most cost effective and operationally viable solution.
35. Security requirements regarding our Airwave connection will be managed. This requires the operating system to be supported by the software company.

## EQUALITY IMPACT ASSESSMENT

36. An impact assessment has been made.
37. The proposals in this report are considered compatible with the provisions of the equality and human rights legislation. There are no impacts identified.

## OPTIONS

38. Option 1 – Do not replace MDT. This option has no financial impact. However, this option will result in the total loss of this functionality in the near future and will reduce Firefighter safety and operational performance.
39. Option 2 – Provide new MDT to our pumping appliances only. This option does not allow for crew accountability, ABR or turn by turn navigation on our special appliances. This option has a total cost of £620,000.
40. Option 3 (Recommended Option) – Provide new MDT to our pumping appliances and a Bridge Device on special appliances. This option provides operational capability across the HFRS fleet. This option has a total cost of £800,000. This is the recommended option as it will enhance the safety of and tracking of all firefighters, to all HFRS vehicles. It will also enable the development of Attribute Based Response (ABR), which is a key development within Service Delivery Redesign (SDR) to make our response to incidents the most efficient and effective.

## RISK ANALYSIS

41. A reduction or loss in MDT capability will reduce Firefighter safety and reduce operational performance.
42. Careful management of the timing of changes will allow for access to ESN and further software developments.
43. If we do not align our capability with our NFSP partners, our current operational flexibility may be reduced. This may also prevent future opportunities for further improvements in operational effectiveness and savings through efficiencies.
44. This proposal will provide a better platform for providing risk information to our operational teams, however will not update the of the risk information provided. The improvements in risk information is being progressed through the development of software for MDT in NFSP, and through a separate Operations workstream.

## CONCLUSION

45. Option 3 will bring our Service up to date in terms of mobile technology available to operational staff and support the future approach for a more connected incident ground.
46. This option will also look forward to developments such as ESN and ABR, for further benefit realisation that should make HFRS more operationally effective. This proposal is also a key enabler to enhance our digital effectiveness.

## RECOMMENDATION

47. That Option 3 be approved by Hampshire Fire and Rescue Authority to start procurement to supply and implement a change in Mobile Data Terminals across the HFRS operational fleet.

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