

TYNE AND WEAR FIRE AND RESCUE AUTHORITY

Item No

MEETING: 15 JUNE 2009

SUBJECT: UPGRADE OF COMMUNICATIONS NETWORK

REPORT OF THE CHIEF FIRE OFFICER, FINANCE OFFICER AND CLERK TO THE AUTHORITY

1 INTRODUCTION

- 1.1 The purpose of this report is to set out for consideration by Members a proposal to upgrade the Authority's Information Communications Technology (ICT) network.

2 BACKGROUND

- 2.1 As Members will be aware the ICT network is an essential provision for the delivery of many vital services including:
- Mobilising – All electronic messages to mobilise fire appliances and personnel are sent from control, across the Authority's network, to the appropriate station.
 - Telephony - All internal and external telephone and fax calls utilise the Authority's network. The telephony system is managed and maintained under the same contract as the corporate network.
 - IT Services – All computers, printers and other network devices are connected to the network. Computer services such as email, intranet, internet, file sharing, databases etc are all reliant upon the corporate network.
- 2.2 The ICT network hardware and telephony system were installed by EADS in 2003/04, following a full procurement exercise. Maintenance of the overall system is also undertaken by the company as part of the contract (EADS is the same contractor responsible for the FireControl project).
- 2.3 Whilst the system has performed well, the growth in services utilising the ICT network over the past five years has been significant and an increase in network capacity is necessary just to maintain current performance and efficiency for Telephony and IT Services.
- 2.4 In addition the continued growth in services utilising the network (e.g. CCTV, Locking systems, Building Management Systems, E-Learning etc) requires the upgrade of networking equipment to ensure that the Authority can develop its services further.
- 2.5 With the increased pace of development in ICT over the past five years, most of the equipment installed as part of the original network is now approaching the end of its effective life. Given the importance of the network to service activities this provides a risk for the Authority should it not be replaced in the very near future.

- 2.6 Consequently it is deemed appropriate to undertake an upgrade of the system to ensure that it remains fit for purpose and it is proposed that the network upgrade is conducted through an amendment of the existing contract with EADS.
- 2.7 The Authority entered into this contract in 2003 for the supply, installation and management of the network. The contract was for a period of five years commencing in June 2004 with the option to extend by a further two years, together with a clause that allowed a technology refresh to be undertaken during the life of the contract. This proposed refresh will replace the outdated equipment only and not the entire system.

3 BENEFITS OF TELEPHONY AND NETWORK IMPROVEMENTS

- 3.1 Some of the specific key benefits of activating the technology refresh clause in the contract are set out below for the information of Members.
- 3.2 Data Cabling – The proposed upgrade of telephony infrastructure will enable computers and telephones to utilise the same data cable – this is expected to free up between 30 and 40 percent of the data cables in use within the Authority. This will result in a reduced need to install extra cabling for office moves, changes, additional phones, computers and other network enabled devices. It is also expected to reduce the amount of data cabling required for new buildings by 30 to 40 percent reducing future capital expenditure.
- 3.3 Increased Reliability– The proposed new network hardware will allow for important data and services to be prioritised to ensure essential service are given priority at peak times – e.g. telephony network traffic is prioritised over email network traffic. This will increase the reliability of many IT services by reducing the risk of a site failure.
- 3.4 Capacity - The growth in the use of PC's, networked hardware and network applications has been significant over the period of the contract. As an example SHQ has around one hundred and fifty more PC's now than when first occupied. Some stations, such as South Shields Community Fire Station are already experiencing performance issues due to available bandwidth. Planned application rollouts may also have impacts on network performance (CFRMIS, HSE, Business Intelligence, Buildings Management etc).
- 3.5 New ICT Services – The increased capacity and functionality of the proposed new switches will allow for new and high bandwidth services to run across the network. Services hoping to make use of the new bandwidth include CCTV which it is hoped will allow the monitoring and recording of the Authority's CCTV cameras to be centralised. It would also mean that more e-learning content can be streamed over the corporate network allowing training courses to be delivered remotely, thereby helping improve efficiency and reduce carbon footprint.
- 3.6 Improved Telephony – the proposed upgrade to the new telephony system will provide many additional features over the existing system which could be utilised to make further efficiency savings. The system is based on a traditional client server architecture meaning existing ICT staff would be able to maintain and support the system with minimal training.

4 COST OF THE TECHNOLOGY REFRESH

- 4.1 In line with the existing contract, a quotation has been received from EADS, in the form of a Change Control Notice, to implement a technology refresh programme, upgrading the obsolete components of the ICT and telephony network in order to provide an enhanced technical architecture.
- 4.2 Placing the order with EADS would be desirable from a technological standpoint, as this would ensure there was only a single party who can be held to account for the operation and maintenance of the whole system.
- 4.3 This is deemed to be particularly important due to the fact that the telephony system is integrated with the data network, which also carries the operational mobilising data, intranet service, tannoy system and a range of other facilities, all of which are supported by the existing service provider.
- 4.4 The service has no access to the technical configuration of the network components that are in use. As a result, it is not possible to comprehensively ensure that the operation of any equipment supplied by a third party would function seamlessly within the overall network. One consequence of this would be the potential for difficulties arising in apportioning responsibility for any faults that occur and the associated technical resolution of these. Given that the network carries data critical to the effective operation of the fire and rescue service, this is considered to be a significant risk to service delivery.
- 4.5 Given the important nature of the services that run across the network, it is considered that disproportionate technical difficulties will arise in operating and maintaining the overall system if a third party supplier delivers the components required to upgrade the network.
- 4.6 The total cost for the technology refresh provided by EADS is £310,760.00 excluding VAT. However, whilst the Authority's ICT manager is of the opinion that the quotation is reasonable, there is no external cost comparator against which to compare the quotation. Therefore, the Chief Fire Officer proposes that the services of an independent ICT advisor are used to analyse the technical and associated financial details in the quotation in order to provide an independent view as to the reasonableness of the quotation.
- 4.7 Should the third party advice be that the cost provided by EADS is reasonable the Chief Fire Officer further requests that the Authority delegates to the CFO, in conjunction with the Finance Officer and Deputy Clerk the authority to bring the matter to a conclusion.

5 FINANCIAL IMPLICATIONS

- 5.1 The Capital Programme for 2009/2010 provides the sum of £350,000 for the proposed upgrade to the communications network. As such, the proposed costs, outlined at paragraph 4.6, above, can be met from existing budget provision. Existing ICT staff will be able to maintain and support the system, so there is no impact on the revenue budget arising from this proposal.

6 HEALTH AND SAFETY IMPLICATIONS

6.1 There are no health and safety implications as a result of these proposals.

7 EQUALITY AND FAIRNESS IMPLICATIONS

7.1 There are no equality and fairness implications as a result of these proposals.

8 RISK MANAGEMENT IMPLICATIONS

8.1 The upgrade of the network will be carefully managed by both EADS and officers of the Authority to ensure continuity of service during the works.

9 RECOMMENDATIONS

9.1 The Authority is requested to:-

- i. Approve the use of a third party to validate the quotation received from EADS, and
- ii. Approve that Chief Fire Officer, in conjunction with the Finance Officer and Deputy Clerk to the Authority to bring the matter to a conclusion.

BACKGROUND PAPERS

The under mentioned Background Papers refer to the subject matter of the above report:

- Authority Report 23 February 2009 Capital Programme 2009/10
- Authority report 24 March 2003 Replacement of IT Data and Telephony Network