

ANGUS COUNCIL

EXECUTIVE SUBCOMMITTEE OF THE RESOURCES AND CENTRAL SERVICES
COMMITTEE – 10TH NOVEMBER 2005
EDUCATION COMMITTEE – 10TH NOVEMBER 2005

BROADBAND COMMUNICATIONS IN PRIMARY SCHOOLS

JOINT REPORT BY THE DIRECTORS OF EDUCATION AND INFORMATION
TECHNOLOGY

ABSTRACT

This report reviews the progress in providing broadband communications to schools throughout Angus and proposes measures to complete the programme in the remaining primary schools.

1. RECOMMENDATION

The Education Committee is recommended to

- a) approve the implementation of broadband communications in 26 primary schools as proposed in this report at a cost of £37,000
- b) agree that the procurement should be exempt from competitive tendering in terms of criteria 16.3.2(b) of the Council Financial Regulations because of the specialist nature of the services and
- c) note that the implementation of this proposal will both significantly enhance provision to schools and reduce the recurring revenue cost.

The Executive Subcommittee of the Resources and Central Services Committee is recommended to

- a) note the contents of this report and
- b) approve the allocation of £15,000 from existing balances within the Information Technology Renewal and Repair Fund as a contribution towards the installation cost.

2. BACKGROUND

The Committees will recall the progress made in recent years to provide all schools in Angus with adequate access to quality data telecommunications to enrich the learning experience for pupils and staff. The provision of these facilities is becoming increasingly important to ensure all pupils will have access to curricular resources and other facilities available through the development of the Scottish Schools Digital Network (SSDN). There is also a requirement to ensure performance is suitable for general access to the Internet and indeed the resources available through the Education Department Intranet.

Reference is made to Report 1314/04 which was approved by the Education Committee at its meeting of 11th November 2004 which set the objective of extending broadband provision in primary schools and identified funding for this purpose.

At present most schools in Angus enjoy adequate communications capacity to meet their immediate needs. This has been achieved in the case of most secondary schools by connection to the Council's core radio-based network (Angusnet) which was created with funding help from the Scottish Executive. This provides high bandwidth at exceptionally low recurring annual costs. Arbroath High School currently has a broadband service provided by a managed service from Research Machines.

In the case of primary schools the implementation of broadband is not yet complete. In the burgh areas primary schools are served by local connections to Angusnet while a number of other primaries receive broadband facilities by means of a supplementary wireless system installed at a number of sites.

However there are currently still 25 primary schools which are served by dial-up ISDN connection to the Council network. Despite the technical configuration proposed by SSDN to minimise the amount of broadband required it is felt that the current level service of provision to these schools will prove inadequate for future needs. The current costs associated with the ISDN service to these schools is £55,000 per annum.

A detailed survey of options for increasing bandwidth to these schools has been undertaken. This has included a full survey of the existing radio network and a review of available landline services.

A study of sites with a view to extending radio/wireless provision based on the current network indicated that only 10 of the schools could be served at an implementation cost of approximately £60,000 together with annual revenue costs of the order of £15,000 per annum. This option would of course not meet the needs of the remaining schools which would still require an alternative. Deployment of this technology to provide service to the remaining schools would require a major redevelopment of the existing network and it was therefore concluded not to pursue this option further.

Detailed consideration was also given to other alternatives using landline services particularly services offered by BT and Telewest. While the services offered are broadly similar in concept the presentation of them makes direct like for like comparison difficult in terms of bandwidth capacity, quality of service taking into account contention ratios with other subscribers and the future cost of expanding the service. The comparison is also made more difficult as this development is part of the preparation for the introduction of the Scottish Digital Schools Network for which there is as yet no definitive specification of schools network capacity. In these circumstances the Director of Information Technology has placed greatest emphasis on procuring as much affordable capacity as possible at this time and the cost effectiveness of future expansion when and if this becomes necessary. Consideration has also been given to the corporate need to use the same service for a number of small Council sites which are not currently connected to the Council network directly.

The principal differences between the two proposed solutions are:

- a) The different contention rates (ie the number of possible subscribers with which the Council's traffic would compete against at times where capacity on the carriers network requires to be shared). In the case of Telewest only two options are available 20:1 which is deemed to be an unacceptable risk for the levels of service expected to be required and 1:1 which is very expensive. The solution

from BT is based on a 5:1 ratio and the Director of Information Technology considers this to be appropriate given the currently available information regarding SSDN.

- b) The configuration of the core communications link directly into the Council provided by Telewest suggests that future expansion of that capacity would be more expensive than the BT proposal. This factor is important as it is intended to add other corporate communications traffic to the arrangement in the near future and depending on the growth of that traffic it may become more likely to require a future upgrade to maintain the service to schools.
- c) The service proposed by Telewest is a fully managed service while the BT solution requires the Council to purchase communication routing equipment. The latter has the effect of dampening the recurring revenue costs to some extent and also allows Information Technology to select preferred equipment. It does however increase the initial setup costs.

The initial set up costs and annual recurring charges of the Telewest solution based on 1:1 contention are £17,500 and £67,165 respectively. The comparable costs for the BT solution are £33,284 and £41,057. There is also a one-off procurement of routers at a cost of £18,572. Illustrative costs over a 5 year period for the respective solutions would therefore be £353,325 for Telewest and £257,141 for BT.

Accordingly taking these factors into account as well as overall cost it is recommended to accept the solution proposed by BT. In the circumstances described above and in view of the specialist nature of the services involved the Exemption Coordinator has agreed that the procurement can be excluded from competitive tendering in terms of Financial regulation 16.3.2 (b).

3. FINANCIAL IMPLICATIONS

Initial installation costs of the proposal amount to £52,000 of which £15,000 can be contained within existing balances of the Information Technology Renewal and Repair Fund and the remaining £37,000 can be met from the specific Education Department contribution to the Renewal and Repair Fund specifically for the purpose of introducing broadband.

Recurring revenue costs indicate a saving of £14,000 to Education Department.

4. HUMAN RIGHTS IMPLICATIONS

There are no human rights implications arising from this report.

5. CONSULTATION

The Chief Executive, the Director of Law and Administration, the acting Director of Finance and the Exemption Coordinator have been consulted in the preparation of this report.

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Director of Education

A Greenhill
Director of Information Technology

28th October 2005

NOTE: No background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information), were relied on to any material extent in preparing this report.