

PROCUREMENT SPECIFICATION FOR ASSESSING INTERFACING REQUIREMENTS FOR DIGITAL TV (DTV) RECEIVERS

1. BACKGROUND

Consumers are faced with a number of choices in equipping themselves for DTV reception in preparation for the switch from analogue terrestrial TV reception to digital television (DTV) in the UK (digital switchover). Optimising these choices for each consumer's individual situation is difficult, given the technical complexity involved. Many need help in making the right choices. BERR is leading an Action Plan¹ for switchover that aims to encourage the development and availability in the UK market place of a wide range of digital TV receivers incorporating agreed "best practice" features in preparation for switchover. The proposed study addresses item 3.1 of the Action Plan.

This study addresses these needs in two areas of interfacing to a TV and to a Digital Set Top Box (STB). Firstly the contractor is asked to look at the remote controls protocols for these devices, and whether a common standard can be found or derived that could be available on most or all of these devices, to enable a particular remote control unit to control any digital TV device. Secondly it looks at electrical interfaces to TVs and STBs – what interfaces are currently available and how we could best achieve a common standard that will allow accessibility support devices and services to be accessed. Both these study areas, although aimed primarily at people with accessibility needs, would offer facilities attractive to the wider public

2. SCOPE OF WORK

The contractor will undertake a paper study of the interfacing between digital TV devices and remote control units, looking at what commonality is available in the signalling protocols, and suggesting what may be achieved by way of a common protocol. The second part of the study will look at the interfacing between digital TV devices and typical accessibility support equipment (eg for audio description), and how a generally available interface could best be implemented

¹ See http://www.digitaltelevision.gov.uk/pdf_documents/publications/2007/DTVUsabilityActionPlan_Oct07.pdf

3. PROGRAMME OUTCOMES

The contractor shall undertake 3 principle areas of work:

- Studying the interfacing between digital TV devices and remote control units, together with studying the interfacing between the digital TV devices and accessibility devices
- Providing a report on the way ahead for a common protocol for remote control signalling
- Providing a report on the way ahead for interfacing to accessibility devices

4. THE REQUIREMENT

The contractor shall provide a report that looks at the status of remote control interfacing and electrical interfacing to DTV equipment and suggest methods by which universal interfaces may be developed. This study is intended to be a theoretical study, unless exceptionally we have a tender that offers compelling analysis and costing within the funding profile. The contractor will study 2 aspects:

- Assess the current protocols used in remote control interfacing and analyse what commonality there is between them. The contractor should define a set of functions needed to readily control a digital TV device and suggest ways in which a common protocol set that could be provided by a range of remote control units could be most easily achieved. If some or all of a defined range of functions is found to be already available then the study should take this as a starting point. If the suggestions of the report are taken up then it is expected that a range of accessible remote controls could be developed.
- Assess the methods for the transmission of text and other data between DTV equipment and peripheral equipment that may be used by the disabled to enhance their viewing experience, ie to increase accessibility. This interfacing would support such functions as talking electronic programme guides, extracting audio description information etc. The possible interfacing methods shall be analysed and ways suggested of achieving a commonly accepted method of doing such interfacing. It is anticipated that the Common Interface (CI) function might form the basis of this function, but the Contractor is free to make other suggestions. The contractor should discuss the interfacing as generically as possible, but may usefully include discussion around specific features such as talking programme guides

Each study shall include discussion about the technology needs and routes, as well as routes by which this could be readily achieved in market and organizational terms. The analysis shall be realistic and take costs into account. The contractor is advised that solutions should be suggested that are market based, and could be readily developed in the commercial arena. Solutions proposed should thus focus on existing developments by companies, and use trade bodies, standards bodies, and other related organisations. Extensive funding of development by the government is not anticipated for any of these needs

Longer term and shorter term options may be given if this is applicable

The Contractor shall also consider Integrated Digital TV (IDTV) devices, ie a TV with integrated digital tuner, when undertaking these studies

A number of features of remote control units are already described in the Digital Television Group publication, the D Book. These features are accepted, and the contractor shall take this into account in their study. Features suggested for an agreed set of protocols should be related to those in the D Book as closely as possible. The study will use the terminology and descriptions of the D Book where possible. Taking this approach will ensure a common way of working by all parties as far as possible

For each case the wider audience needs should be considered, as such interfaces offer the opportunity to develop equipment for the general market. Providing for such wider issues will provide greater market opportunities, reduce costs of devices designed for accessibility, and thereby encourage take-up by manufacturers and consumers

If a copy of the relevant sections of the D Book is required for the purposes of this contract it can be supplied on request from BERR

The contractor shall note previous work in this area, and build on it. In particular there are two previous reports² prepared for DTI from Scientific Generics and i2 Media

The contractor shall supply documentation in PDF and Microsoft Word format to BERR

In so far as possible the contractor will present the study results for each of the two parts as separate studies

5. PROCESSES AND RESPONSIBILITIES

The project manager for BERR is Simon Hicks, Head of Technology in CCI Unit. He may be contacted as follows:

Address: Simon Hicks, CCI Unit, Bay UG25, 1 Victoria Street, London SW1H 0ET

Tel: 020 7215 1028

Fax: 020 7215 5442

Email: simon.hicks@berr.gsi.gov.uk

He should be contacted for matters relating to the activities of the tender and contract, and contractual issues

Invoices should be sent to Mike Dunne at the address above, or electronically to mike.dunne@berr.gsi.gov.uk

The Contractor shall appoint a person to act as manager and point of contact for this contract. This person shall be readily available in normal working hours to answer

² These 2 reports may be found at

http://www.digitaltelevision.gov.uk/publications/pub_eq_needsconsumer-april06.html

queries and discuss the substance of the work. Where large parts of the work are the responsibility of others in the organisation these individuals should be made known to BERR, and readily accessible.

Tenderers shall provide a proposed schedule of events as part of their tender. The chosen contractor shall confirm their draft schedule and provide further details

6. CONTRACT MANAGEMENT AND MONITORING

The contractor's project manager shall liaise with the BERR project manager in a timely manner to discuss contract progress and unforeseen delays

The key performance stages are the 3 points listed at section 3

7. PROJECT TIMETABLE

7.1 The Project will be completed by 28 March 2008. A substantial part of the report, and ideally a proposed final draft shall be available by 14 March 2008

8. PAYMENTS AND EXPENSES

Payment of the agreed fee for this contract will take place as a single sum upon successful completion. The contract will be for a single all-up cost and no other fees (such as expenses) will be paid in addition. The contractor is expected to anticipate all necessary funding issues and include them in their quotation.

If there are specific issues that the contractor feels merit payment in advance they shall state them in their tender and agree them prior to contract

9. PROCUREMENT NEEDS

Statements in this specification expressed using "will" or "shall" shall be taken as mandatory or essential requirement. The use of other wording of intent implies that the Contractor has some flexibility, but in the event of ambiguity should refer to the Project Manager for interpretation

Tenderers should note that there is a need to undertake the work within the specified timeframe, and it is designed to be a relatively compact task. We are however seeking a report is specific and objective.

Intellectual property generated under this contract shall belong to BERR. BERR shall be able to freely disseminate in any form material provided by the Contractor (apart from that which the Contractor has derived in confidence from third parties)

10. TENDERS

In their response to the tender the Tenderer shall give a response to each section of this specification indicating that they understand each of the requirements, and if appropriate explaining how they would undertake the requirement

Tenderers shall provide written and electronic versions of their proposal to BERR by 1200 midday on 11 January 2008. Written responses shall be made to:

Mr Herbee Thomas
CCI Unit
Department for Business, Enterprise and Regulatory Reform (BERR)
Bay UG25
1 Victoria Street
London
SW1H 0ET
United Kingdom

Electronic responses shall be sent to: herbee.thomas@berr.gsi.gov.uk, and copied to simon.hicks@berr.gsi.gov.uk

Queries relating to the tender should be sent by email to Simon Hicks as shown in section 5. Applicants requiring a prompt reply should lodge their query by 0900 on 20 December 2007. Applicants should note that queries and replies will be copied to all other applicants if they provide substantive detail