About Arqiva

Arqiva has its headquarters in Hampshire, with other major UK offices in Warwick, London, Buckinghamshire and Yorkshire. It now has 5 UK and 3 international satellite teleports, over 70 other manned locations, and around 9000 shared radio sites throughout the UK and Ireland including masts, towers and rooftops from under 30 to over 300 metres tall.

The company is owned by a consortium of long-term investors led by Canadian Pension Plan Investment Board (CPPIB) and has 2 operating divisions: Broadcast & Media and Mobile, Government & Enterprise.

Arqiva is technology- and service-neutral and operates at the heart of the broadcast and mobile communications industry providing shared infrastructure solutions to facilitate the cost effective deployment of nationwide communications services. We are at the forefront of network solutions and services in an increasingly digital world. The company provides much of the infrastructure behind television, radio and wireless communications in the UK and has a growing presence in Ireland, mainland Europe and the USA.

Arqiva is a founder member of Freeview (Arqiva broadcasts all 6 Freeview multiplexes and is the licensed operator of 2 of them) and was a key launch technology partner for Freesat. Arqiva is also the licensed operator of the Digital One national commercial DAB multiplex.

Alongside the BBC, Arqiva's Spectrum Planning Group plays a critical role in planning Digital Switch Over (DSO).

In addition, for broadcasters, media companies and corporate enterprises Arqiva provides end-to-end capability ranging from;

- outside broadcasts (10 trucks including HD, used for such popular programmes as Antiques Roadshow, Question Time, Proms in the Park, a wide range of sporting events and the IIFA Awards 2007 "BollyWood Oscars" with a huge worldwide audience);
- satellite newsgathering (30 international broadcast SNG trucks);
- spectrum management for Programme-Making & Special Events (PMSE) through subsidiary JFMG;
- 10 TV studios;
- playout (capacity to play out over 70 channels including HD);
- digital signage, including managing the output for CBS Outdoor's digital escalators and cross track projection on the London Underground; to
- satellite distribution (over 1200 services delivered).

In the communications sector the company supports cellular, wireless broadband, video, voice and data solutions for the mobile phone, public safety, public sector, public space and transport markets.

Major customers include the BBC, ITV, Channel 4, Five, BSkyB, Classic FM, ESPN, the five UK mobile operators, Airwave, Viacom, Turner Broadcasting, Metropolitan Police and RNLI.
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Executive Summary

Arqiva respond to this consultation paper from a position of already having significant reporting duties across both its regulated and un-regulated businesses and we are keen to work with Ofcom and the Government to ensure that new reporting requirements are relevant to future developments within the communications sector and at the same time do not result in an unnecessary burden on industry:

Before responding to the questions specifically posed in the Discussion Paper, we make some general observations.

General Observations

The consultation document and approach envisaged is very open and general in context and leads us to the following observations;

- A focus on 'most widely available and most commonly used public networks and services' is a reference to the past and we would welcome a more forward looking bias

- Whilst we welcome the focus placed on infrastructure sharing in the reporting exercise it is unclear what metrics will be relevant to this aspect of network provision and how the resulting benefit is determined

- We note that Ofcom is planning to aggregate information rather than report all data collated, whilst this will to some extent protect commercially sensitive information there is still the risk that the process of reporting still results in a degree of disclosure

- We are keen to understand the strategic value that this reporting exercise will generate over time and as such welcome greater clarity on how this activity will set the future policy agenda and investment priorities

- On the subject of service availability this is typically contract specific and a function of commercial drivers

We welcome the intent to consider the UK's communications infrastructure in a more strategic sense and hope that this process leads to a meaningful long term perspective on the priorities for UK Plc.

Response to specific questions

In this section, we provide responses to the BIS questions.

Overall Approach

Question 1:

Have we got the scope right? Is the set of networks, services and operators we propose to report on appropriate and is our approach to data gathering and analysis correct?

We welcome Ofcom's intent to use existing available data as much as possible and from this perspective understand the emphasis placed on 'the most widely available and most commonly used public networks and services.' However, we do wonder whether this places an undue emphasis on legacy networks rather than focusing on the networks and services of the future which may require alternative network solutions. To this end we do have concern that the approach adopted is too heavily backward looking and may not provide the UK Government with sufficient clarity over the network infrastructure requirements of the future and hence handicap strategic decision making and policy setting. Furthermore, we believe that a greater emphasis should be placed on the role of spectrum within the delivery of Electronic Communications Services and more specifically the extent to which it is effectively and efficiently used to deliver services.

Question 2.

Do you agree with our approach to classifying different types of networks and services? Are there better ways to define them?

As noted in response to Question 1 above the approach proposed appears to be too heavily legacy biased with only limited emphasis placed on new services, e.g. next generation access services.

Question 3.

Do you agree with our proposal to prioritise 2G mobile coverage and broadband speeds for the first report?

We believe that a focus on 3G mobile coverage rather than 2G mobile coverage would have greater relevance as demand for mobile broadband services is growing dramatically and a clear understanding of coverage and capability is of particular importance for today's consumers.

Question 4.

Do you agree with our proposed reference date for the report as a date in June 2011 and are we allowing enough time for the provision of data?

This would seem adequate.

Question 5.

How can we improve the comparability of data between different operators?

No comment

Use of Electromagnetic Spectrum

Question 6.

Do you agree with our approach for reporting on the use of electromagnetic spectrum?

As noted in our response to Question 1, we believe that a greater emphasis should be placed on the role of spectrum within the delivery of Electronic Communications Services and more specifically the extent to which it is effectively and efficiently used to deliver these services.

Coverage

Question 7.

Do you agree with our approach to measuring coverage?

The approach suggested seems sensible but it is worth reinforcing the need to define the minimum broadband speed to determine the relevant coverage levels (population served).

Question 8.

How do you think we should establish an appropriate level of granularity and the right technical assumptions to make the data useful?

It is worth noting that as far as infrastructure sharing is concerned, particularly by the MNOs, that site data is notoriously sensitive to slight errors or data formats for NGRs or postcodes and it is worth Ofcom sense-checking some or all of the data to ensure that the use of shared assets is accurately identified.

Infrastructure Sharing

Question 9.

Do you agree our proposed approach will enable us to report adequately on arrangements for infrastructure sharing? Are there reasons why network operators would be unable to provide us with the data we have proposed to collect?

The approach proposed will enable Ofcom to report on the extent to which infrastructure sharing is present, but it is unclear the extent to which it will provide insight into the economic and commercial benefits realised as a consequence of this approach. In addition, with the advent of mobile network consolidation and the sharing of active rather than passive equipment on sites it is unclear how this aspect will be addressed. Finally, it is worth noting that MVNOs serve consumers via wholesale network sharing and it is unclear how the benefits associated with infrastructure sharing will be recognised.

As noted in response to question 8 above a focus should be placed on testing data accuracy. Furthermore, our site share agreements typically have confidentiality clauses which prevent us

from disclosing information about our customer's businesses / operations in respect of the contracts they have with us without their consent, and so there are issues with us disclosing customer specific site info / Points of Presence (POP) data. It would seem sensible for Ofcom to collect the POP data directly from the MNOs etc and compare directly with Arqiva's active site location data.

Wholesale Network Access

Question 10.

Do you agree our proposed approach will enable us to report adequately on the provision of wholesale network access? Are there reasons why network operators would be unable to provide us with the data we have proposed to collect?

See response to question 9 above.

In the case of broadcast networks the information is readily available to Ofcom as Ofcom licences all services carried and hence only needs to refer to the licensed services at the specific point in time for reporting purposes.

Capacity

Question 11.

How do you currently measure the capacity of the network?

As noted by Ofcom the capacity of digital broadcast networks is measured in terms of available bit rate. The available bit rate is a function of the technical conditions under which the digital multiplex is operated and these technical conditions are controlled by Ofcom. In addition and as noted on a geographic basis the number of multiplexes available is a function of the amount of spectrum deployed to deliver Digital Terrestrial Television broadcast services. All these aspects are clearly defined and controlled by Ofcom.

With reference to the provision of site sharing services this is a passive infrastructure arrangement and as such 'network capacity' is not applicable

Plans for the Infrastructure Report

Question 12.

Do you agree that we should define specific metrics for different types of networks?

Yes. However, it would seem sensible to focus effort on determining the data capacity performance of mobile broadband networks as a key metric directly relevant to the quality of service available to the consumer.

Availability

Question 13.

Do you agree with the proposed approach of gathering specific reports of outages above a certain threshold, and how do you think such thresholds should be set?

Arqiva's broadcast networks have been designed to operate at very high availability levels and following the merger of Arqiva and NGW in 2008 we have adopted higher availability thresholds as a consequence of the merger undertakings that were imposed by the Competition Commission. On the subject of outages it is important to note that in the general operation of the networks we have planned outages as part of routine maintenance and also with the Digital Switchover process progressing we have specific outages relating to that. We seek further guidance from Ofcom on what would be construed as a qualifying outage in terms of this reporting requirement.

In terms of satellite distribution to the UK DTH market, we suggest that outages are limited to the failure (complete loss) of a whole distribution multiplex platform, as opposed to single-channel events within that multiplex. Furthermore, it may be worth considering only outages of duration greater than 15 minutes, which were within the control of Arqiva, outages do occur that are out of Arqiva's control, such as spacecraft anomalies.

Question 14.

For smaller outages, which statistical data do you think it is valuable to gather?

We have a range of reporting metrics which are typically service and customer specific and the extent to which one measure can be determined may be of limited relevance and applicability, recognising that networks have been designed to achieve specific performance characteristics.

In terms of satellite distribution to the UK DTH market please see response to Question 13 above.

Question 15.

Is a three-month reporting period sufficient to assess availability performance?

Yes

Resilience

Question 16.

Do you agree with our approach to reporting resilience and emergency planning and the list of data we would ideally collect from CPs?

Yes

Question 17.

Do you already provide information to other organisations and government agencies around resilience issues? If so, what are they?

No Comment

Question 18.

Do you agree that there are additional networks and services which are of sufficient importance to include in the report? If so, what are they?

No comment

International Comparisons

Question 19.

Are there other sources of international data which we should consider? Are we focusing on the right networks and metrics? In particular, have we got the right metric for commenting on next-generation access deployments?

No specific comment about next generation access deployments, however it is worth noting that it is particularly difficult to undertake meaningful international benchmarking exercises of communication systems and infrastructure as the context and priorities for service delivery will vary between countries. To this end, this aspect is probably only comparable at the very highest level of performance and coverage.