STUDY REVEALS SCOPE FOR UHF ‘DEFRAGMENTATION DIVIDEND’

Digital UK today publishes a study outlining options to deliver a major boost in spectrum capacity for mobile broadband services.

The study by telecoms specialists Aetha Consulting explores the scope for a fundamental rethink of how UHF spectrum is used by mobile operators. The report estimates that the changes could unlock a capacity increase of up to 70 per cent.

UHF frequencies are prized by both broadcasters and mobile operators as they travel long distances and provide good indoor reception. Over the last 10 years, digital terrestrial television (DTT) services such as Freeview have been required to give up UHF spectrum to help meet demand for mobile data.

The 700MHz band is the latest slice of spectrum being re-allocated to mobile, incurring significant costs to UK taxpayers and reducing the amount of spectrum available for Freeview and other terrestrial TV services by one-third (see notes). Freeview is the most widely used TV service in the UK, watched in around 19 million homes. Across Europe around 250 million people use a DTT service.

The report highlights how the incremental process of change has produced a fragmented plan for mobile broadband in the 700, 800 and 900MHz bands. Simplifying the use of these frequencies could produce a ‘defragmentation dividend’ of 25-70 per cent, while also future-proofing the spectrum for new technologies, including 5G.

The report explores three illustrative options, including a shift from existing Frequency Division Duplex (FDD) transmission, which provides equal capacity for the uplink and downlink, to Time Division Duplex (TDD) arrangements. The use of TDD would increase downlink capacity to accommodate activities such as video streaming. The report makes clear that the maximum gains would need to be planned over the long-term (beyond 2030) as other users of the bands may need to be re-located.

Jonathan Thompson, CEO of Digital UK, said: ‘The time has come to take a more strategic view and move beyond the approach of ‘salami slicing’ DTT spectrum to create capacity for mobile data. Any further cuts to television airwaves are likely to lead to a lose-lose outcome that damages Freeview and creates even greater inefficiency. The proposals in this report offer the prospect of a win-win situation, which sees a major boost for mobile capacity while safeguarding the UK’s most widely used TV service.’

ends; notes follow

The study is available to download at digitaluk.co.uk/aethareport

Contact: Jon Steel
email: jon.steel@digitaluk.co.uk
tel 07837 470222
**About Digital UK:** Digital UK supports digital terrestrial TV (DTT) in the UK. The company provides operational support for the platform, including management of the Freeview electronic programme guide, and leads on developing DTT strategy, working with broadcast partners and industry. We have also led development of Freeview Play, a new hybrid platform bringing together free-to-view DTT and catch-up services in a range of TVs and set-top boxes. Digital UK is owned by the BBC, ITV, Channel 4 and Arqiva.

**About Aetha Consulting:** Aetha Consulting helps players in the telecoms industry to develop creative and sustainable solutions to the challenges facing them in a constantly changing environment. We specialise in undertaking rigorous assessments to support major strategic and regulatory decisions.

**About 700MHz clearance:** In November 2014 Ofcom announced its decision to reallocate some of the airwaves used by Freeview to mobile services. A similar process is being carried out across Europe, as spectrum is reassigned to meet a predicted increase in demand for mobile data. The changes require extensive re-engineering of the DTT transmission network, including installation of new antennas at more than 400 sites across the UK at a cost of more than £500m.