

Strategic Review of Digital Communications

A submission from the Federation of Communication Services.

The Federation of Communication Services represents companies who provide professional communications solutions to professional users. Our members deliver telecommunications services via mobile and fixed line telephony networks, broadband, satellite, wi-fi and business radio. Our members' customers range from SMEs, home-workers and micro-businesses up to the very largest national and international private enterprises and public sector users. FCS is the largest trade organisation in the professional communications arena, representing the interests of nearly 400 businesses with a combined annual turnover in excess of £45,000million.

In the context of this inquiry, FCS members are predominantly that portion of Openreach's customer portfolio which accounts for 90% by number of accounts, but only 14% by volume of business. They are representative of the large and vibrant reseller community which has grown up since the creation of the predecessors to WLR, and has flourished in the period since the Undertakings guaranteed equivalence of access. Without high quality, affordable and ubiquitous connectivity – preferably available from a choice of more than one supplier -- it is impossible to deliver the hosted databases, value-added call-handling and recording functionality and cloud-based software solutions which empower business growth and efficiency in the present age.

FCS is therefore pleased to have this opportunity to respond to this timely strategic consultation. It has long been our view that the regulation of the UK markets for broadband and for both fixed and mobile telephony infrastructure need to be scrutinised from first-principles, both by the Regulator and by Parliament. We welcome the breadth of topics covered in the questions, and we look forward to helping inform the development of this work in the coming months.

Main concerns:

1. Our overall concern is to encourage Ofcom to take a first-principles approach to the kind and quality of regulation which will be needed in the markets of tomorrow. Ofcom is a world-class regulator in a world-class market. The present EU-wide regulatory model is no longer fit for purpose. Ofcom should use this opportunity to take the lead in proposing radical and transformational change which will benefit the UK market, and constitute real, visionary best practice guidance for regulation of currently less sophisticated markets elsewhere in the world.
2. The proposed BT/EE merger, currently with the CMA, highlights that Ofcom can only regulate the (EU defined) 'regulated' markets. But customers are consuming converged, technology-agnostic solutions. They don't have a preference for the technical platform. They just have a preference

for it working. Regulation must radically re-align with the reality of converging solutions.

3. In particular, data now needs the same level of attention from Ofcom as voice. There is no requirement for data regulation in the EU directive.
4. Regulatory presumption to date has been towards service level competition. But not infrastructure-level competition. This has successfully created today's vibrant and hugely competitive resale market – a market might already justifiably be termed 'world class'. But it has also perpetuated the de-facto monopoly of BT's Openreach subsidiary as wholesale supplier in much of the country and hindered the entry of new entrants and innovative new approaches to delivering connectivity.
5. To create the kind of genuinely open and flexible market which is best able to cope with the changing and mutating demands of future businesses and consumers, we now need to empower competition at the infrastructure level — and to do so without allowing the creation of artificial barriers to switching supplier. Price-effective wholesale access to fibre backhaul infrastructure is the key enabler to unlock the next generation of connectivity.

Question 1: Do stakeholders agree that promoting effective and sustainable competition remains an appropriate strategy to deliver efficient investment and widespread availability of services for the majority of consumers, whilst noting the need for complementary public policy action for harder to reach areas across the UK?

- 1.1 The major concern of this review must start with the realities of the present market. Technology has converged hugely in recent years, and continues to do so. The present EU-authored regulatory framework is no longer fit for purpose in a market where consumers can access identical products over different technological platforms. Indeed, this reality goes to the heart of current industry concerns about the proposed merger of BT and EE. Promoting effective and sustainable competition beyond 2016 needs to start from the position of regulation which understands the impending consumption requirements of consumers. Not regulation which reflects the legacy technical constraints of providers.
- 1.2 The Ofcom/BT Undertakings of 2005 did create a framework under which effective and sustainable competition could flourish at the wholesale/resale level. These achievements should not be underestimated, and these principles of equivalence should certainly continue to underpin all future regulatory interventions
- 1.3 FCS considers the next major thrust needs to address the overlooked issue of effective and sustainable competition at the infrastructure level. The focus on ensuring competition at the service level has inadvertently perpetuated a monopoly position at infrastructure level for many parts of the UK. It has, further, allowed BT to create a new monopoly in next generation access products.

- 1.4 Passive infrastructure access and equivalence of access to wholesale backhaul and dark fibre could and should be speedily required of UK providers in the fixed telephony space.
- 1.5 Equivalence of access to wholesale voice and data products should be required of all mobile network operators.

Question 2: Would alternative models deliver better outcomes for consumers in terms of investment, availability and price?

- 2.1 Regulatory models which presume in favour of competition, transparency and equivalence of inputs are always the industry's preferred option.
- 2.2 The present model of supply in the mobile telephony market should be subject to root and branch scrutiny. Power is concentrated in the hands of MNOs, who enjoy de facto SMP in some geographic areas, by dint of owning local mast sites in areas where their competitors do not. There is no equivalence of wholesale access for resellers. The granting of MVNO agreements frequently includes clauses which reduce the MVNO operators to little more than sales agents, or restricts their access to certain products (4G, for example) which are reserved for the MNO's own direct customers.
- 2.3 A requirement for national roaming, plus an equivalence of inputs approach to wholesale access would serve the market better. The significantly lower cost of entry would encourage both retail competition (with the concomitant creation of innovative new products or pricing models as resellers seek to differentiate themselves) and the entry of niche and specialist players (for example, MVNOs specialising in emergency services communications).

Question 3: We are interested in stakeholders' views on the likely future challenges for fixed and mobile service availability. Can a 'good' level of availability for particular services be defined? What options are there for policy makers to do more to extend availability to areas that may otherwise not be commercially viable or take longer to cover?

- 3.1 We are already at the stage where some of these decisions appear to have been taken for us. Government is now freely talking about a universal service obligation for broadband connectivity with download speeds of variously 5Mbps or 10Mbps.
- 3.2 The de-nationalisation of BT came with a 'Universal Service Obligation' upon BT to provide a service delivering voice to every UK premises upon request. FCS considers this obligation has now been overtaken by the mobile coverage obligation in Telefonica's spectrum licence under

- the 2012 'digital dividend / 4G' spectrum auction, and that it should pass to Telefonica at the end of 2015.
- 3.3 A 'good' level of availability has already effectively been defined by the Government's 'digital by default' agenda for public services. As a minimum, any new USO for broadband would have to deliver sufficient connectivity, with sufficient reliability and sufficient security to enable citizens to access all 'digital by default' public services on-line, without any risk of being disadvantaged in comparison to other citizens with faster access speeds.
 - 3.4 By definition, therefore, any USO would have to at least aim to capture 100% of households. Experiences from the farming community (where requirements to fill in forms and upload reports on-line require a degree of connectivity in excess of that available to many rural premises) suggest the cost and hassle of using 'agents', simply because they are located in areas of better connectivity, is working to the detriment of efficiency and productivity in the sector.
 - 3.5 To build out to these spot users requires cost-efficient wholesale access to fibre backhaul.
 - 3.6 Policy and regulatory interventions to date have concentrated upon incentivising the correct behaviours among suppliers. With PSTN now already scheduled to be phased out in 2025, there is a strong argument for interventions of a different kind.
 - 3.7 One possible approach to deliver a minimum universal connectivity to all users – even those in the 'uneconomical' areas -- might be to institute some kind of 'connectivity intensity penalty' scheme. Something similar to the carbon trading regime. The inability of an incumbent supplier to deliver acceptable connectivity to a customer should attract a penalty. This penalty should rack up geometrically year on year, in accordance with a pre-published programme. Performance in reducing 'connectivity intensity' would be required to appear in the network's annual report to shareholders, in a manner similar to environmental reporting.
 - 3.8 Suppliers could then decide whether to invest in improving connectivity, or sell the book on to an alternative provider, or invest in offsetting schemes (for instance providing the services of those farming 'agents' free of charge as service to their customers). It is important to create the right incentives for improvement, rather than tolerate excuses for the status quo.
 - 3.9 The coverage obligations attached to the current Home Office Emergency Services Network procurement suggest the UK can expect 99% geographic coverage from one or more interacting mobile networks by the end of 2017. A requirement for UK subscribers to enjoy the levels of universal roaming currently available only to overseas visitors to Britain would underpin the necessary build and back-haul investment costs by delivering higher baseload demand and traffic.

Question 4: Do different types of convergence and their effect on overall market structures suggest the need for changes in overarching regulatory strategy or specific policies? Are there new competition or wider policy challenges that will emerge as a result? What evidence is available today on such challenges?

- 4.1 Yes. Absolutely they do. See paragraph 1.1 above. Convergence is changing the market on a daily basis. FCS's firmly held view is that Ofcom should seek from the outset to establish nothing less than a fundamentally different regulatory template from that currently followed in the UK and throughout Europe.
- 4.2 Such an ambition should not be constrained by concerns about Ofcom's current terms of reference under the present UK Communications Act or the European Communications Directive upon which that Act is based. The historic regulatory approach is self-evidently out of pace with the present converged market. The UK has the most open and competitive telecommunications market in Europe, if not the world. And the UK has the most experienced and professional industry regulator in Europe, if not the world. It is absolutely right that the basis for a new regulatory framework for the EU market should have its genesis in the UK, and with Ofcom.
- 4.3 Simple evidence from today's market: UK customers buying Belgian SIM cards so they can roam across UK mobile networks. Voice calls on landlines being offered free of charge because call costs are subsidised by revenues from broadband data services.
- 4.4 Of course new challenges will develop in future markets. The big question is what basis regulation should be written upon if it is to anticipate and effectively intervene. FCS submits future-proof regulation in technologically converging markets needs to start on the basis of what consumers wish to consume, rather than which technologies are used to deliver that content.

Question 5: Do you think that current regulatory and competition tools are suitable to address competition concerns in concentrated markets with no single firm dominance? If not, what changes do you think should be considered in this regard and why?

- 5.1 The UK has a long history of innovative regulatory interventions in a wide variety of industries, ranging from geographical monopoly (eg: water) to multiplicity of provider models (eg: financial services). With this background upon which to draw, it is hard to imagine what additional tools would be necessary, or what competitive situations might arise which bear no resemblance to any previous experience encountered across the panoply of UK regulatory regimes.

- 5.2 The definitions of what constitute competition concerns will need to be less proscriptive and more agile in future. For example, Ofcom (in common with all other European telecoms regulators, and DG Connect itself) contends there is a competitive market place in mobile communications because the market has at times contained variously three, four or five MNO players, none of which has an overwhelmingly dominant market position. Yet this has not prevented the MNOs from effectively behaving as a complex monopoly, severely restricting wholesale access to their networks and circumscribing the abilities of MVNOs to act in an unencumbered manner. BT is required to offer wholesale access to its infrastructure business on an equivalence of inputs basis. But Virgin Media is not similarly constrained. Similar objections apply to passive infrastructure access.
- 5.3 The ideal future pattern of regulation is therefore more likely to be written along the lines of the spirit of the law, rather than nice legal interpretations of the letter.
- 5.4 This, in turn, suggests a fundamentally different model for the regulator. Perhaps the thinking behind this change might be summed up and simplified by thinking of Ofcom 2025 more akin to a specialist agency of the Competition & Markets Authority, and less akin to the enactor of prescriptive legislative frameworks. It is beyond the competence of FCS at this stage to articulate a precise framework, but we feel it is important to establish the principle as the basis for future, more detailed discussion.

Question 6: What do you think is the scope for sustainable end-to-end competition in the provision of fixed communications services? Do you think that the potential for competition to vary by geography will change? What might this imply in terms of available regulatory approaches to deliver effective and sustainable competition in future?

- 6.1 Questions of sustainable end-to-end competition will tend to be answered differently depending on where the resposdee sits in the value chain. There is huge competition between multiple players within the business-to-business market at the reseller and wholesaler level; aggressive competition between a few, much larger resellers in the business-to-consumer space. And scarcely any competition at the infrastructure level, where the present regime perpetuates the dominance of BT's Openreach subsidiary.
- 6.2 The experience of the resale market to date suggests markets can be relied upon to deliver consumer choice, to stimulate competition and to provide a rich choice of price/service combinations with minimal regulatory interventions, where there is an effective equivalent platform for wholesale access to monopoly-controlled infrastructure.
- 6.3 The next big step – and a large part of the answer to the question about competition varying by geography -- has to be to promote competition at the infrastructure level as well. BT Openreach has spent the last three years working with business customers on the Business Service

Improvement Programme. FCS members still regularly report failure rates of 30% for provisioning business lines against agreed deadlines, and as high as 70% for Ethernet services. Wait times in excess of 12 months are not uncommon. Yet in the majority of cases, there is no alternative provider.

- 6.4 Ofcom already has the powers to require passive infrastructure access, and these principles can be extended to a price-controlled access plan for existing dark fibre, to give certainty and the ability to create business models to all companies who own such assets. BT has created upwards of 2,000 access nodes on its fibre network as part of the taxpayer-funded BDUK rural broadband programme. These access nodes should be treated as a national asset, and price-controlled access made available to other infrastructure suppliers.
- 6.5 The long-term impact on regulation should be that less direct interventions are needed, as a competitive market develops at every stage of the value chain.

Question 7: Do you think that some form of access regulation is likely to continue to be needed in the future? If so, do you think we should continue to assess the appropriate form on a case by case basis or is it possible to set out a clear strategic preference for a particular approach (for example, a focus on passive remedies)?

- 7.1 Existing requirements for the mapping, reporting and permitting of third-party access to new-laid duct infrastructure seem adequate. But the questions of building and accessing passive infrastructure need to be taken beyond the parochial boundaries of one industry.
- 7.2 Access regulation will continue to be needed as long as incumbent operators have a vested interest in refusing or delaying access.
- 7.3 Ofcom and other utility regulators should work jointly to ensure ductwork is incorporated in all new road and railway build-outs and upgrades. Even if the ductwork is installed empty and remains so for years, the incremental costs of incorporating it with the civils at the build stage is negligible (and could be incorporated as a condition of planning consent or a Section 106 benefit, so there is no up-front cost to the council tax payer or the exchequer). Subsequent access rentals could accrue to the original builder, or to local or national government agencies, and could be traded as futures.

Question 8: Do you agree that full end-to-end infrastructure competition in mobile, where viable, is the best means to secure good consumer outcomes? Would alternatives to our current strategy improve these outcomes, and if so, how?

- 8.1 The widest possible levels of competition at every level of the value chain will deliver the best

possible outcomes for consumers and business customers.

- 8.2 The creation of wholesale access to mobile network infrastructure on an equivalence of inputs basis would encourage a rush of new reseller entrants and MVNOs.
- 8.3 National roaming is going to come sooner or later. It is invidious and unsustainable to have a situation where visiting foreigners enjoy levels of roaming connectivity unavailable to UK citizens; long term it will simply create a grey market for imported EU SIM cards. National roaming plus equivalent wholesale access would revolutionise the market.

Question 9: In future, might new mobile competition issues arise that could affect consumer outcomes? If so, what are these concerns, and what might give rise to them?

- 9.1 New competition issues are already arising. Voice calling over wi-fi is already a reality. As data predominates and the market moves into LTE and 5G, connectivity issues and spectrum availability will become crucial differentiators. Access to reliable backhaul will become increasingly important. Which underlines the importance of the need, now, to create competition at the infrastructure level.
- 9.2 Pre-emption of public mobile network bandwidth for emergency services Voice Over LTE at times of local emergency will cause a huge upswing in consumer complaints. Consumer expectations of what their mobile devices can deliver, and with what level of resilience, will need to be managed carefully. And new tariff arrangements will be created to reflect different service availability guarantees.

Question 10: Does the bundling of a range of digital communications services, including some which may demonstrate enduring competition problems individually, present new competition challenges? If so, how might these issues be resolved through regulation, and does Ofcom have the necessary tools available?

- 10.1 Yes. But that is the world into which we are now moving. Converging technologies give rise to converging go-to-market models. We have to expect competing suppliers to bundle increasingly diverse combinations of products in order to differentiate themselves and create 'stickiness' with customers.
- 10.2 Ofcom has demonstrated thus far that it has both the tools and the willingness to make effective interventions, balancing the needs of providers to obtain a return for 'first mover advantage' with the longer-term risks to the market created by suppliers enjoying a monopoly on a certain product (Premiership football TV rights, for example. Or pay-to-stream movie services). The fact that these services may have been bundled with other, non-controversial

services to the same consumer, and as part of a single tariff, has not inhibited these interventions. Ofcom's track record is good, and the tools necessary to regulate have been wielded effectively and with precision. Suppliers of bundled services need only receive unambiguous guidance on likely present and future concerns to make the necessary commercial decisions.

Question 11: What might be the most appropriate regulatory approaches to the pricing of wholesale access to new and, risky investments in enduring bottlenecks in future?

- 11.1 Existing regulatory approaches to enduring bottlenecks tend to be driven by the status quo realities of present ownership structures.
- 11.2 In increasingly open and competitive markets, regulatory presumption should be towards encouraging open competitive tenders to address specific issues. Such approaches would encourage inward investment, potentially from multiple stakeholders, potentially with a variety of different investment models and payback periods depending on a whole variety of unpredictable corporate attitudes to risk and reward. Free market solutions should be actively sought by default, rather than by exception.
- 11.3 Except where there are exceptional circumstances, such tendering activities should take place with a minimum of preconditions. Procurement framework approaches should be avoided wherever possible, to encourage the broadest possible range of potential bidders on a project-by-project basis.

Question 12: How might such pricing approaches need to evolve over the longer term? For example, when and how should regulated pricing move from pricing freedom towards more traditional charge controls without undermining incentives for further future investment?

- 12.1 Again, regulation needs to move more towards articulating a clear set of principles, rather than enforcing a pre-determined plan. A useful model might be the 'claw-back' clauses in BDUK's rural broadband procurement, which provide for BT to repay a proportion of the up-front State Aid investment element subject to certain levels of take-up being achieved. Potential investors only need a clear and defensible set of principles in order to be able to construct a business plan. The presumption should always be towards encouraging as many potential stakeholders as possible to participate.

Question 13: Are there any actual or potential sources of discrimination that may undermine effective competition under the current model of functional separation? What is the evidence for such concerns?

- 13.1 FCS acknowledges the professionalism of the individuals engaged in the Equivalence of Access Board, and the strategic commitment of BT Group to ensuring the spirit of the Undertakings is enacted in practice within the organization. It is a testimony to their commitment that BT Retail is an active FCS member in its own right, because BTR experiences exactly the same quality of service issues with Openreach as all other business reseller organisations.
- 13.2 The appointment of the Chief Executive of Openreach is determined by the Board of BT plc. The £1bn per annum surplus contributed by Openreach to overall BT Group trading performance is masked within group financial reporting. The strategic direction, investment plans and employment policies of Openreach are signed off by the BT Group. The pension and HR arrangements for Openreach employees are administered by the BT Group. Openreach vehicles, corporate livery and marketing messages all carry BT Group logos.
- 13.3 Functional separation does not exist in the world of BT Group press and public affairs spokespeople, who regularly speak of Openreach's (functionally separated infrastructure) investments as though they were an investment by BT's retail telephone and broadband business. This perpetuates a view among policy-makers and journalists that BT Group is a single vertically-integrated provider, rather than that Openreach is a separate entity.
- 13.4 Within the commercial business-to-business marketplace, resellers regularly have to explain to their customers that they cannot provide the promised service because they have been let down by Openreach. Customer response is usually that they might as well have bought the service from BT, then, because they'd have done it right for their own people. Which suggests 10 years of functional separation has signally failed to establish any understanding of the distinction between BTR and Openreach in the minds of even informed business customers.
- 13.5 This issue of brand migration is particularly acute in Northern Ireland, where Openreach does not exist as a separate entity. There is ample evidence from Ulster CPs of business customers arguing that all CPs do is stick their name on BT's product. On the other hand, BT's line provisioning waiting times and fault-fix service levels are far better in Northern Ireland than in any other part of the UK. There are best-in-class installation lessons to be learned from BT-NI which have yet to have any impact on Openreach service levels in Great Britain.

Question 14: Are there wider concerns relating to good consumer outcomes that may suggest the need for a new regulatory approach to Openreach?

- 14.1 The test for any current or proposed approach should be: does this either overtly or inadvertently have the effect of perpetuating Openreach's de-facto monopoly in certain parts of the country?
- 14.2 As noted above, a wider regulatory purview, encouraging competition at every level of the

supply chain – including the infrastructure level – is the best way to stimulate service level improvements. There is nothing like the fear of losing business to competitors to stimulate a renewed interest in customer satisfaction.

- 14.3 Ofcom should seek to create a market place in which CPs always have access to a choice of at least two suppliers of wholesale business-grade connectivity. This need not mean mandating physical overbuilds of existing infrastructure. It may mean only creating market conditions in which a new stratum of wholesale connectivity aggregator business models can arise. The Fluidata Service Exchange Platform, currently being used by companies like Gigaclear, TalkTalk DSL and Avanti, is an early example of this type of development. The business models (and, if necessary, regulatory levers) for such operations might be closer to those seen among the retail energy companies.
- 14.4 Encouraging the creation of connectivity aggregation platforms should, in turn, create new opportunities for Openreach and other infrastructure suppliers to respond to more specific and defined demand patterns by developing price/service differentiated business products. At present, Openreach’s attempts to develop more responsive, business-focused products are regularly frustrated by the industry’s inability to commit in advance to guaranteed minimum volume levels. The existence of a competitive stratum of intermediary aggregator organisations creates conditions in which aggregators will be willing to make the kind of up-front commitment needed to structure an Openreach business case. Having done so, they also have a business imperative to back the new product with a sales and marketing plan to ensure they don’t take a commercial loss on the deal.
- 14.5 Many CPs currently enjoy a direct trading relationship with Openreach, or with other providers of connectivity. It is important that these direct relationships should not be compromised by the development of sophisticated aggregator intermediaries. There will always be a market for ‘no frills’ connectivity, and it is important CPs continue to have direct access to the products.
- 14.6 The business reseller industry would benefit from involvement in creating open and transparent migration plans and ensuring equivalence of access in the context of the switch-off of PSTN, the future of WLR3 and the ability to consume GEA.
- 14.7 It is particularly important to ensure small and specialist CPs continue to enjoy direct and equivalent wholesale access to connectivity products.
- 14.8 BT’s IP Exchange number portability infrastructure represents both a powerful facilitator for number portability and a potential single point of failure for many business CPs, who have built their current go-to-market strategies on the assumption that IPX will continue to be available and accessible on the current basis. IPX itself has some innate functionality issues, particularly when porting numbers from one stakeholder to another. The strict alternative, in the current market, is for each CP to maintain a bilateral agreement (and associated porting procedure) with

every other CP in accordance with GC18. Industry best practice documents for this process already exist, but experience suggests it can take up to two years for reluctant losing providers to agree bilaterals with gaining rivals.

- 14.9 The industry should be given confidence that IPX (or a more functionally elegant successor) will continue to be available on the present basis. The current process of agreeing individual bilaterals should be superseded by a nationally applicable requirement in the General Conditions, perhaps backed up by an 'opt-out' clause to protect particular, legitimate and exceptional cases.

Question 15: Are there specific areas of the current Undertakings and functional separation that require amending in light of market developments since 2005?

- 15.1 The market in 2005 fell comfortably into the various market-segment-silos defined in the present EU-wide regulatory framework. Voice delivered to the handset over copper; voice delivered to the handset over radio spectrum; voice and data transmitted from exchange or mast site over fibre backhaul at the infrastructure level etc etc.
- 15.2 In 2005, the products consumers consumed was a function of what the infrastructure and retail suppliers were able to deliver to them, given the technical constraints of the particular infrastructure platforms over which the services would be delivered.
- 15.3 In 2015, the products consumers consume can be delivered to them identically over a variety of infrastructure platforms. Wi-fi calling from mobile handsets is simply the latest harmonic in this ongoing migration of technologies. It is no longer appropriate to distinguish monopoly / supplier / wholesale / retail behaviours purely in terms of the technology used to deliver the service.
- 15.4 To illustrate the point, we borrow below just a few arguments from the industry's concerns about the current proposed merger of BT with Everything Everywhere:
- A combined BT/EE is likely to be able to use its cross-market position to its advantage in a way that other operators cannot. BT would, via this transaction, buy its way into the mobile market. Other fixed line operators do not have the ability to do the same and therefore this merger would adversely affect them, particularly if provision of stand-alone fixed services becomes unviable.
 - BT/EE's incentive to support its existing MVNOs may change or disappear; if MVNOs are not able to provide offerings at the highest level of existing technological standards they will be unable to attract new customers and will lose existing ones.
 - Many MVNOs find it difficult to launch innovative services as they require flexible Operating

and Business Support Systems (OSS/BSS) environments. If this is not offered on an open basis to MVNOs, the lack of availability can be solved by introducing an ‘enabler’ which acts as an interface between the MVNO and MNO. The inclusion of an OSS/BSS enablement layer on a mandatory basis could help competition to ensure that services are provided openly and equally to the retail community, and make the ability to change the host MNO easier.

- As IP becomes all-prevailing in providing both voice and data services to enable a competitive and innovative market that offers UK plc the best choice of application and service, service providers must have equal access to the mobile market in the way they already have within the IP Softswitch Market. Without this equal access the big three MNOs will have a massively unfair advantage in being able to provide bundled mobile and IP services. [FCS/IMVNOx joint submission to CMA, April 2015.](#)

Question 16: Could structural separation address any concerns identified more effectively than functional separation? What are the advantages and challenges associated with such an approach?

- 16.1 Simple structural separation would certainly serve to rapidly address the issues highlighted above at 13.3 – 13.5. It would send a clear signal to the market. It would clarify issues surrounding investment, profitability and payback periods. Issues regarding TUPE, employee pensions and similar residual liabilities could be dealt with via proven industry models, and need not feature as objections in any consideration of the merits of the case for/against structural separation.
- 16.2 It is the view of FCS members that the only consideration in any discussion on structural separation of Openreach should be to seek outputs which deliver a significantly improved experience for Openreach customers. And significantly greater confidence in the organisation’s strategic direction, viability and focus for both customers and employees. For this reason, FCS does not believe simply ‘floating Openreach off’ is a viable strategic option. Nor does FCS believe any kind of state involvement or re-nationalisation of Openreach will deliver the kind of strategic certainty and ongoing service and delivery improvements the industry seeks.
- 16.3 FCS proposes ownership of a structurally separated Openreach should be vested in an industry mutual organisation, along the lines of Welsh Water or (perhaps a currently less auspicious example) Railtrack. Strategic direction should be determined by a board of stakeholders, including business, consumer, public sector and industry representatives, Ofcom and DCMS. This response is not intended as a detailed proposal: at this stage, FCS simply suggests Ofcom refer to what has already been achieved in other sectors (see, for example, the elegant stakeholder engagement model used for deciding investment strategy in the Scottish water industry).
- 16.4 There are many potential advantages to this new approach. They are obvious in terms of delivering confidence in continuity of service for existing customers and staff. They are perhaps

less obvious in terms of aligning the investment and recovery periods needed for this strategic infrastructure asset with those which attract pension funds and inward-investors in other UK infrastructure markets.

- 16.5 It is not hard to speculate on how Openreach's current £1bn pa contribution to BT Group funds could be deployed or leveraged to improve UK network infrastructure. At the risk of being absurdly simplistic, BT's 2012 estimate that full fibre to the premises connectivity across the UK would require investment of around £35bn simply becomes an argument for a Government-backed bond today and a 35 year redemption period in the context of a mutualised Openreach.
- 16.5 As at present, BT Group resale businesses would continue to buy wholesale access to connectivity from a mutualised Openreach in the same way as other wholesale customers. BT Group P&L would then reflect the commercial realities and investment patterns of a resale business, rather than the ongoing tensions created by pulling resource across two very different cost/return models.

Question 17: What do stakeholders think are the greatest risks to continuing effective consumer engagement and empowerment?

- 17.1 FCS is not convinced the market currently demonstrates much evidence of effective consumer engagement and empowerment. We speak here only for the business-to-business segment, but we are concerned at the general lack of understanding among business customers about what the industry is and is not capable of delivering. And especially of customers' own responsibilities and duties.
- 17.2 In particular, we believe the last Government's Cyber Streetwise initiative represents a well-informed and accurate window upon the poor levels of awareness among business people of the risks to business posed by cyber-crime. In the context of this review, ongoing industry frustrations at the levels of 'dial-through' fraud perpetrated upon business customers are a particular concern. It is not at all uncommon for SME businesses to experience bill shock of the order of £20,000 over the course of a weekend when the office is unmanned because of artificially inflated call traffic, typically routed via their voicemail. Customer responses to these attacks suggest a high level of ignorance and naivety.
- 17.3 FCS welcomes Ofcom's Small Business Portal. And we welcome Government's insistence that all suppliers to the public sector undertake Cyber Essentials accreditation. But we note there is no mention of telecoms systems in the Cyber Essentials standard. We recommend Ofcom champion and focus an all-industry effort to ensure company directors deal with the threats of telephone or internet-enabled security breaches as a specific corporate responsibility. 'All risks' business insurance policies and ISO9000 QA policies should require evidence that directors have taken and recorded reasonable best-practice precautions.

Question 18: What indicators should Ofcom monitor in order to get an early warning of demand-side issues?

- 18.1 Ofcom (and probably several other UK regulators) should seek to see meaningful KPIs incorporated in the various business surveys and data reports required by BIS, DEFRA, Treasury etc. Consumer satisfaction can be polled quantitatively via ADR complaints statistics and qualitatively via existing mass market research instruments (BBC viewers panel, MORI etc). (see also paragraph 21.1)

Question 19: What options might be considered to address concerns about consumer empowerment at each stage of the decision-making process (access, assess, act)? What more might be required in terms of information provision, switching and measures to help consumers assess the information available to them? What role may Ofcom have to play compared to other stakeholders (including industry)?

- 19.1 FCS welcomes DCMS's strategic commitment to gaining-provider-led switching of services across all platforms, and including consumer-facing service 'bundles'. We urge that this commitment be swiftly followed up with implementation.
- 19.2 Moving from current switching and porting practice, which depends upon different protocols and different databases, will require the creation of a new national database of telephone and IPV numbers, and corresponding geographic locations. The industry is best placed to set up and administer such a database, using models of the kind already deployed within the energy industry, or by the Mobile Number Portability Operators Steering Group. FCS suggests Ofcom's current spectrum licencing database could usefully be incorporated in this new project at the same time.
- 19.3 Current industry custom and practice on number porting is one of the major causes of customer dissatisfaction (see for example Jigsaw research for Ofcom's 2014 SME market inquiry). The increasing move to VOIP implies there will be a growing disparity between the geographic number prefix and the actual geographical location of the user in question. This implies a requirement for precise data sets to be captured and verified every time a number's provenance is changed. Care must also be taken to ensure there is consistency of networks' routing protocols: there must be no risk of subscribers being stranded in the event of a carrier ceasing to trade, or choosing a technology solution which subsequently fails. Ofcom has a crucial role in drawing up and enforcing the rules of engagement. See also above comments re IP Exchange (paragraphs 14.8 – 14.9)

Question 20: Are there examples in competitive or uncompetitive sections of the market where providers are not currently delivering adequate quality of services to consumers? What might be causing such outcomes?

- 20.1 As noted above (see for instance 6.3), Openreach consistently fails to meet the service deadlines it has agreed with its CP customers. FCS believes this is partly due to the same engineers being used to deliver both business connectivity and consumer connectivity; partly due to the mix of Openreach employees and third party engineering contractors. But mostly due to top-down attempts to solve customer service issues through systems, data capture, analysis and bureaucracy, rather than by empowering individual engineers and their local line managers to make customer service decisions on the ground. Openreach's contract is always with the CP, not with the CP's customer. Additional complications and misunderstandings arise when engineers arriving on a customer's premises (in BT Group-liveried vehicles) fail to behave purely as agents of the CP with whom the customer is contracted.
- 20.2 As noted above (see for instance 2.2), Mobile Network Operators continue to exhibit behaviours typical of a complex monopoly. The ongoing vertical integration of mast site ownership and retail service delivery perpetuates local monopoly positions and locks out innovative third-party resellers who have no route to access mobile connectivity on an equivalent wholesale basis. MVNOs can enter the market only on the terms set by the MNOs, and often with a service offering which puts them at a commercial disadvantage to their principals. What might be causing these outcomes might be a legacy corporate mentality among the MNOs which sets incentives against market share statistics, rather than customer satisfaction levels, and which seeks to defend the returns on infrastructure investment.
- 20.3 A useful metric to test the assertion about MNOs' focus on customer satisfaction levels might be to examine levels of calls and deadlock resolutions recorded by CISAS and Ombudsman Services, and incoming call handling statistics from PhonepayPlus.

Question 21: What further options, if any, should Ofcom consider to secure better quality of service in the digital communications sectors?

- 21.1 As with so many issues in and around the communications industry, QOS is too often a question of what the supplier wishes to deliver, rather than what the consumer wishes to experience. To begin to answer this question, Ofcom should first establish what 'good' looks like from the customer's point of view, at every point in the value chain. For example:
- 'good service' where the customer is a business communications provider means (Openreach) engineers arriving on time, on the agreed day, at the correct premises, with the correct tools and equipment, with a clear job sheet upon which the details of a

responsible individual at both the customer (ie the CP) and the client (ie the CP's customer) are accurately recorded, and performing the required job in the required time frame, testing, signing off, making good and departing with everything in order and 100% complete.

- 'good service' where the customer is an SME business is being able to trust your CP to deliver the service you have specified, in the time frame you have agreed, on the day you have pre-arranged, in the knowledge that it will be completed within the agreed time frame so you can plan and allocate the resources to start benefiting from your investment in the new services the following day.
- 'good service' where the customer is a teenaged member of the public is being able to phone your mobile phone network and talk without unnecessary delay to an informed and intelligible individual who has the experience to understand your queries on your monthly bill and the authority to deal with any errors there and then.
- 'good service' where the customer is an enterprise-level business which wishes to port its number ranges to a different network is a seamless transition which takes place on the agreed date with no loss of functionality, compromise of security or drop of broadband, and which is accurately and fairly reflected in the subsequent bills.

Garnering an idea of what constitutes 'good service' for different customer journeys, Ofcom can agree suitable metrics with industry, and draw up proportionate remedies for failure to perform. The proportionate remedy for a business which has committed to 20 chairs in a call centre which cannot operate because Openreach fails to deliver the service for which Openreach has been contracted by the client's CP needs to be clearly understood – and levied -- in terms of the opportunity cost to the client, not the technical cost to the network. (see also Paragraph 20.3 above).

Question 22: Might there be future opportunities to narrow the focus of ex ante economic regulation whilst still protecting consumers against poorer outcomes?

- 22.1 Some market sectors which have been subject to ex ante approaches for some while might now be characterised as mature, in as much as a vibrant and competitive infrastructure subsists. But it is hard to think of a single market area today where the products offered are identical to those offered 10 years ago, or where they are consumed by customers in an identical way and with identical expectations.
- 22.2 The markets of tomorrow are less likely to throw up single-supplier monopolistic issues than those of yesterday. But new issues of local SMP in certain products or services are likely to arise, as are unexpected and deliberate impediments to desired competitive outcomes. The regulator of tomorrow is likely to need more, not fewer, tools at its disposal. And the foresight and authority to apply them swiftly and tactically before serious damage can be done to

markets.

Question 23: Where might future network evolutions, including network retirement, offer opportunities for deregulation whilst still supporting good consumer outcomes?

- 23.1 'Superfast' broadband is a fit-for-purpose solution for present-day consumers who wish to watch catch-up TV, stream movies and participate in on-line gaming. It is skewed in favour of consumers, both because of its asymmetric download/upload speeds, and because of its geographic penetration: even in areas with state aid, roll-out to cabinets in business postcode areas has lagged significantly behind roll-out to neighbouring postcodes with high densities of households.
- 23.2 At the same time, the level of investment and the focus on equipping the UK for a digital future has encouraged the emergence of new entrants to the market place. Companies like City Fibre, Gigaclear and Spectrum Internet are delivering Fibre-To-The-Premises solutions, lit with a minimum 100Mbps service, with synchronous upload and download speeds. From nowhere, these new contenders have arrived at a point where they already pass 1.2m premises, and have already declared themselves on track for 10m by the end of 2017.
- 23.3 Where local authorities have taken the initiative to seek competitive tendering around BDUK Superfast Extension Programme schemes, it has proved possible to deliver FTTP at scale to rural communities with a level of state aid intensity of around 20%. (For example, Gigaclear FTTP delivery to 'last 5%' in West Berkshire)
- 23.4 To allow as many businesses and consumers as possible to enjoy a choice of providers, a regime should be urgently devised to allow wholesale access to fibre backhaul and dark fibre assets. This regime should also take account of the backhaul needs of mobile mast site operators and specialist radio industry mast site operators like Airwave and Arqiva.
- 23.5 There is talk about a planned phasing out of traditional copper access products (for example, substituting GEA for WLR3). It is important to ensure current models of access and ability to consume remain in place, to guarantee the maximum opportunity for the maximum number of reseller players to participate in the market.
- 23.6 The copper network enjoys certain technical differentiators which fibre networks do not. In particular, its ability to continue to function during times of mains power outage. Early consideration should be given to re-configuring existing infrastructure before there is any wholesale de-commissioning, with a view to encouraging new models for selling what may be high value or niche resilient or private communications services over copper.

Question 24: What are the potential competition and consumer protection implications of the rise of OTT services? Might the adoption of such services enable future deregulation without raising the risk of consumer harm?

- 24.1 Arguably the biggest consumer protection issue is the ability of unscrupulous individuals to clone or spoof OTT services. Any service which is available freely over the internet or in an app store is likely to fall prey. And unsuspecting consumers (including business consumers) cannot reasonably be expected to be able to differentiate between the genuine and the spoof. See, for example, the excellent and extensive work PhonepayPlus has undertaken on cloned 'Angry Birds' and similar spoof apps which run on mobile phones and contain spyware or hidden dialers to PRS numbers.
- 24.2 Given the overall levels of understanding about cyber crime (see for example paragraphs 17.1-2 above), there is a strong 'caveat emptor' argument that access to OTT products should be strictly controlled at this stage of the market's development.
- 24.3 Neither the reseller community nor the insurance industry is in a position to bear the reputational or financial costs which might result from an explosion of novel OTT applications, which may or may not be subject to illicit copying, appealing to inexperienced and ill-equipped purchasers. Arguably the best way to ensure consumers grow used to the products, and more mature in their understanding of the risks associated with unlicensed versions is to publicly and volubly restrict their access to them: nothing stimulates the desire to act like an informed and mature individual than a regulator or politician who insists you have to be protected for your own good.
- 24.4 Consumers should be informed of the dangers, and recommended to source products only from reputable, Ofcom-registered CPs. Rather than use the RID list, which contains some redundant businesses, membership lists from organisations such as FCS could be de-duplicated with the live subscribers to CISAS and Ombudsman Services' telecommunications ADR schemes to provide a robust initial universe without adding any cost to the process.
- 24.5 The downside risk of failure to control the market until consumers are sufficiently educated to distinguish 'good' OTT solutions from 'bad' ones is that multiple bad experiences will damage consumers' confidence in the solutions as a whole. And thus risk putting back the development of promising and efficient business and consumer solutions by many years.
- 24.6 There is a role for the regulator to act as impartial industry expert in developing appropriate consumer protection best practices relevant to our mutating markets. (see also paragraph 17.3 above)
- 24.7 The more businesses and consumers rely upon consuming rich or specialist functionality via OTT

applications, the more important reliable, resilient infrastructure access becomes. And the more important synchronous upload and download speeds become. Ofcom should prepare now for regulatory interventions with the intent of balancing upload and download speeds.

Question 25: Are there any areas where you think that regulation could be better targeted or removed in future? What would be the benefit of deregulation as well as the main risks to consumers and how these could be mitigated? Please provide evidence to support your proposals.

- 25.1 Considering the length of time since the UK privatised its state-owned copper network, encouraged mobile networks to build infrastructure, consolidated its spectrum licencing regime and merged its regulatory bodies into a coherent and cohesive whole, there are still far too many instances where regulation fails the consumer.
- 25.2 Lack of competition at infrastructure level is a concern for users (particularly small and medium sized resellers) in all areas – be it consolidation, lack of mast sites and access restrictions for Business Radio dealers, local geographic monopolies and lack of wholesale access for MVNOs and business CPs, or a sole supplier situation of a sub-optimal broadband connectivity solution designed for consumer rather than business use.
- 25.3 Ofcom is already well aware of the shortcomings in these areas, and FCS continues to work with the Ofcom team to address them. The big point is that regulation has hitherto been largely a matter of fairly blunt economic instruments, attacking fairly large targets. Despite its shortcomings, this approach has largely succeeded in delivering the required outputs. Considering what we started with, and what was required of the regulator, it is greatly to Ofcom and the industry's credit that the United Kingdom today boasts a thriving service level industry in both business radio and fixed line telephony, and that we do at least have a high nationwide level of geographic availability for mobile voice and data signals.
- 25.4 There is no such thing as a perfectly functioning market. Functioning markets, by their nature, exhibit what Schumpeter described as 'creative destruction'. And this is particularly true of the maturing, converging and dynamic communications market. The first stage of Ofcom's vital work in creating a functioning and competitive UK comms market is over. The finessing and sensitivities which will be required to deliver appropriate and proportional regulatory interventions in the next 10 years are of a fundamentally different nature than those used to drive competition into areas which were previously the sole province of vertically-integrated state monopolies.
- 25.5 This review needs to start with the fundamental understanding that under Ofcom's guidance to date, the UK comms market has moved rapidly towards maturity. In that process, it has exhibited the classical shifts of power which typify maturing markets: from power and control resting with the sole supplier, through power resting with a vibrant wholesale/resale

infrastructure, to power resting with informed and confident end users. The Canute-like calls from sole suppliers and some wholesale/resale incumbents for regulation to prevent the market from maturing are entirely to be expected. But they should be resisted.

- 25.6 Ofcom's focus should be on the future. By the nature of the growing diversity of means by which market entrepreneurs are satisfying the newly-articulated demands of ever more confident customers, there will be market opportunities and failures which we cannot presently foresee. Ofcom should prepare against the assumption that some future regulatory interventions will need to be more precise, more tactical and perhaps shorter-lived than we have seen hitherto. The key to this is building a regulatory framework around the foundation of customer satisfaction, rather than any technological or value-chain presumptions. And a clear understanding that there are different types of customers, and that they have different (and maybe conflicting) requirements.
- 25.7 FCS's plea, as always, is for regulation which understands and empowers the specific needs of business customers (both SMEs and enterprise level users) and public sector organisations. FCS members and staff look forward to working proactively with Ofcom to develop these outputs in the months and years ahead.

SUBMISSION ENDS