.
Digital Communications Infrastructure Strategy Consultation

Thank you for choosing to respond to this consultation. This online survey should be completed with referral to the information accompanying the questions in the Digital Communications Infrastructure Strategy consultation document published on the gov.uk website.

This consultation will close at midnight on Wednesday 1 October 2014.

Disclosure of responses

Please read this section carefully before you start responding to this consultation.

The Government intends to publish responses received from organisation to this consultation on www.gov.uk following closure of the consultation period.

However, all information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004).

If you want information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory code of practice with which public authorities must comply and which deals, among other things, with obligations of confidence.

In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the department.

The department will process your personal data in accordance with the DPA and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

. Are you content for the Government to publish your response?

- (●) Yes, I would like the Government to publish my response.
- ( ) No, I do not want the Government to publish my response.

. Please explain why you regard the information you have provided in response to this consultation as confidential.

This question was not displayed to the respondent.

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Organisational / individual details

Before proceeding to the consultation questions, please provide contact details and some information about you or your organisation. This is optional but will help with our analysis of your response.

DCMS will process your personal data in accordance with the Data Protection Act 1998.

. Name

Matthew Hare

. Are you responding on behalf of an organisation?

- (•) Yes
- ( ) No

. Organisation name

Gigaclear plc

. Contact email address

matthew.hare@gigaclear.plc

. Contact address

Hitching Court
Abingdon
OX14 1RG

. Please select which category best describes you or your organisation

Fixed communications provider

. If other, please give details.

This question was not displayed to the respondent.

. **Introduction: The role of Government**

Q1a.
Is this an appropriate role for Government?

- ( ) Yes

◉ No

Q1bi.
Are there other high level principles the Government might adopt?

◉ Yes

○ No

Q1bii.
If yes, please give details.

The Government's main role needs to be vigorous in its support of competition whilst accepting that infrastructure investment naturally leads to some level of monopoly, and it must respond rapidly and robustly when an *abuse* of that monopoly comes to light with a mandate to seek out such abuses.

At the same time, the Government should accept that it is very unlikely to be able to successfully predict the future, as the technology and market is likely to evolve far faster than the Government can alter its predictions.

Q1c.
What resources do you consider the Government should aim to deploy to effectively manage its role?

Refocus of OFCOM onto monopoly power abuse identification and elimination.

. **Section 1: Existing and planned communications infrastructure and the current infrastructure supply market**

Q2. What potential opportunities are there for Government to leverage its combined buying power to support policy objectives?

1. Government needs to be very cautious about the chilling effect of large procurement exercises on competition, as these invariably lead to concentration of market power

2. The Government should consider dual-sourcing infrastructure as a strategy for resilience and performance rather than seeking a singly highly-specified solution

3. The Government needs to get much better at evaluating procurement performance, learning, and promoting best practice.

Q3a. If migration to IPV6 is required, are there any barriers to that migration?

◉ I think there are significant barriers.

○ I think there are insignificant barriers.

○ I do not think there are any barriers.

○ I do not think IPV6 is required.

Q3b. How might these barriers be addressed?

Every Government procurement must mandate IPv6

. **Section 2: What might future demand look like?**

Q4a. Is an ongoing disparity of provision of broadband services across the country inevitable?

◉ Yes

○ No

Q4b. If so, should this be addressed?

◉ Yes

○ No

Q4c. How might this be done most effectively?

1. Make long term debt available secured against built fibre assets: must meet simple specification, available in £500k blocks, expecting to re-posses and sell-on a proportion of the built fibre assets when the owning business fails
2. Allow communities (Counties, Districts or Parishes) to control their own destinies if they want to

Q5. How symmetrical will digital communications networks have to be in the future? Will this differ across user types? What implications does this have for fixed and wireless broadband provision?

We run symmetric networks today. Our traffic is split 70/30%. Therefore anyone who is running traditional 90/1-% networks is underserving their customers. We see future networks as being far more symmetric, more like POTS networks than broadcast. Long term, we expect overall traffic to be approximately 60/40%

Q6. Which countries should be our benchmarks on communications infrastructure to ensure that business remains in the UK and continues to invest?

As a country, we are competing with:
1. The Bay Area
2. New York
3. Berlin
4. Seoul
5. Stockholm
If we have better communications infrastructure (especially raw speed and reliability), then we are winning...

Q7a. What metrics do you think should or will become relevant in comparing network performance in different countries?

1. Availability of symmetric FTTP/H running at at least 100Mbps
2. Ubiquity of fast (10Mbps+), uncontended wireless

Q7b. What metrics should most appropriately be used as the basis to set objectives for Government policy?

See 7a, but in 10 years time we should be expecting to see *requirements* 100 times greater

. **Section 3: Scenario 1**

Q8a. Do you agree with this scenario or elements within it?

- ○ Strongly Disagree
- ◉ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

Q8b. Where do you agree/disagree? If you disagree what alternative scenario do you envisage?

This is a "business as usual" scenario, which takes no account of the reality that in 10 years time we will be doing lots of different things that we don't currently envisage (e.g. where were Facebook, Twitter and Netflix 10 years ago?). Demand will be far higher and more diverse.

Q9. What are your views on the technology commentary underpinning this scenario? To what extent might the infrastructure/technology discussed evolve irrespective of demand and how far it be a direct consequence of the level of demand?

Infrastructure based competition is much more likely than this scenario assumes, and will drive hugely greater capacity and performance at the local, regional and national levels.

Q10a. Are there technologies not identified here that you think will have a major impact on the performance of existing infrastructure or the deployment of additional infrastructure in the next 10-15 years?

- (•) Yes
- ( ) No

Q10b. If yes, please give details.

"Unkown unknowns", but it will definitely not be business as usual.

Q11a. Are there wider environmental issues not reflected in the scenario e.g. the price of availability of energy that will affect any of the scenarios?

- (•) Yes
- ( ) No

Q11b. In what way might these wider environmental issues affect any of the scenarios?

1. Energy will cost more
2. People will cost more
3. Systems will cost less

So this will drive investment to automate

Q12a. How likely is any unforeseen disruption to this scenario?

- ( ) Very Unlikely

- ○ Unlikely
- ○ Undecided
- ○ Likely
- ◉ Very Likely

Q12b. In what area might it occur?

This question was not displayed to the respondent.

. **Section 3: Scenario 2**

Q13a. Do you agree with this scenario or elements within it?

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ◉ Agree
- ○ Strongly Agree

Q13b. Where do you agree/disagree? If you disagree what alternative scenario do you envisage?

This is what business and consumers want right now... they just find it difficult to get outside London.

Q14. What are your views on the technology commentary underpinning this scenario? To what extent might the infrastructure/technology discussed evolve irrespective of demand and how far it be a direct consequence of the level of demand?

Although there will be some technology convergence in mature markets, this scenario ignores that fact that there will be significant new development in new markets and new applications.

One question that should be asked: why does it cost so much more to move 1MB of data across the UK that it does to move it across the world.

Q15a. Are there technologies not identified here that you think will have a major impact on the performance of existing infrastructure or the deployment of additional infrastructure in the next 10-15 years?

- ◉ Yes

○ No

Q15b. If yes, please give details.

See Q10

Q16a. Are there wider environmental issues not reflected in the scenario e.g. the price of availability of energy that will affect any of the scenarios?

◉ Yes

○ No

Q16b. In what way might these wider environmental issues affect any of the scenarios?

See Q11

Q17a. How likely is any unforeseen disruption to this scenario?

○ Very Unlikely

○ Unlikely

○ Undecided

○ Likely

◉ Very Likely

Q17b. In what area might it occur?

This question was not displayed to the respondent.

. **Section 3: Scenario 3**

Q18a. Do you agree with this scenario or elements within it?

- [ ] Strongly Disagree
- [ ] Disagree
- [ ] Neither Agree nor Disagree
- [x] Agree
- [ ] Strongly Agree

Q18b. Where do you agree/disagree? If you disagree what alternative scenario do you envisage?

> Ubiquitous fibre and mobile are where we are headed. With hugely more data, with massively more endpoints.

Q19. What are your views on the technology commentary underpinning this scenario? To what extent might the infrastructure/technology discussed evolve irrespective of demand and how far it be a direct consequence of the level of demand?

> As communications becomes ever more important, security and privacy will increase as issues and solutions to *these* challenges may cause their own knock-on disruptions.

Q20a. Are there technologies not identified here that you think will have a major impact on the performance of existing infrastructure or the deployment of additional infrastructure in the next 10-15 years?

- [x] Yes
- [ ] No

Q20b. If yes, please give details.

> See Q10

Q21a. Are there wider environmental issues not reflected in the scenario e.g. the price of availability of energy that will affect any of the scenarios?

- [x] Yes
- [ ] No

Q21b. In what way might these wider environmental issues affect any of the scenarios?

See Q11

Q22a. How likely is any unforeseen disruption to this scenario?

- [ ] Very Unlikely
- [ ] Unlikely
- [ ] Undecided
- [x] Likely
- [ ] Very Likely

Q22b. In what area might it occur?

This question was not displayed to the respondent.

. Section 3: General questions on the three scenarios

Q23a. Are there factors, for example technical or unrelated to the regulatory framework, that could create bottlenecks and delay future infrastructure deployment in the UK in this timeframe, that would result in demand not being met or the UK not being seen as a leading digital nation?

- [x] Yes
- [ ] No

Q23b. Please give details.

Key issues are:
1. Over-regulation
2. Under policing of abuse of monopoly power
3. Procurement schemes that reinforce monopoly positions
4. Zig-zagging of policy that discourages infrastructure investors

Q24a. Do you expect commercial providers to deliver future infrastructure and meet demand on a purely commercial basis, or is some form of public intervention likely?

- (•) Commercial providers will meet demand on a purely commercial basis.
- ( ) Some form of public intervention is likely.

Q24b. If public intervention is likely how might that work with the commercial provision of infrastructure? What form might that intervention take?

This question was not displayed to the respondent.

Q25. Which current or draft legislation might prevent or facilitate the emergence of any of the scenarios?

Key challenges:
> Business rates on backhaul networks discouraging build and lighting of new national and regional backhaul capacity
> a new Communications Act will introduce years of uncertainty... good for the main incumbent but bad for everyone else
> a lack of understanding that the main incumbent's interests are not the same as the UK's

Q26a. Do you have views on which scenario (or combination of scenarios) is most likely and should influence the development of future strategy?

- [ ] Scenario 1
- [ ] Scenario 2
- [x] Scenario 3
- [ ] None

Q26b. Please give your reasoning for why you think this scenario or combination of scenarios is most likely.

Please base your role on the bedrock that the future is uncertain and will not follow any one of these scenarios

. **Section 4: Competition and regulation**

Q27. How might efficient investment in communications infrastructure be supported, for example by changes in the regulatory framework?

> Robust and effective action (including pro-active investigation) against abuse of monopoly positions.
> Reform of business rates regime and/or introduction of a new class that encourages investment in new regional and national fibre capacity

Q28a. Are any further measures necessary to incentivise the rollout of future mobile infrastructure in currently underserved areas?

- (•) Yes
- ( ) No

Q28b. Please give details.

Introduce "Use it or lose it" policy on mobile spectrum at a local level to allow re-purposing to competitors

Q29a. Is there a role for a revised USO or USC to ensure that minimum consumer demand requirements are met and to reduce the potential for a new digital divide? What might this look like?

- ( ) I think there is a role for a revised USO
- ( ) I think there is a role for a revised USC
- (•) I think there is a role for both a revised USC and a revised USO
- ( ) I do not think a revised USO or USC are needed

Q29b. What might this look like?

It needs to be aligned with the "digital by default" strategy, and should include telehealth which will become a huge part of our future is we are to support our ageing population without bankrupting ourselves. So Peak time speed, reliability and quality (latency, jitter, packet loss) all need to be in a new USC/USO

Q30. In terms of supporting future innovation and long-term investment in infrastructure, what areas of broadcasting regulation may have served its purpose by 2025 -2030 (or indeed earlier). What future technical developments may also have longer term implications for regulation and wider public policy?

I do not see a public service broadcaster supported by taxpayers by 2025

Q31a. Are there changes to the EU Framework that the UK might seek to encourage more competition in UK markets?

- ○ Yes
- ⦿ No

Q31b. Please give details.

This question was not displayed to the respondent.

Q32. Should Government seek changes to the European Framework which put more reliance on competition law?

- ⦿ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

Q32b. How might this be done?

This question was not displayed to the respondent.

Q33. In what ways can you see competition driving technological change in the UK in the future?

It is the main and by far the most effective driver of change. Competition to the incumbent is the carrot: regulation is the stick. Competition encourages change to exploit new markets and opportunities. Regulation ossifies the status quo.

Q34. How can the regulatory framework keep up to date with new business models and changes in technology?

Regulate less. Understand the future is uncertain. Watch the present closer. Enforce harder and faster.

Q35. Are there any changes to legislation other than the Communications Act that would incentivise the provision of communications infrastructure?

- (selected) Yes
- No

Q35b. What might these changes be?

As previously stated:
> Reform of business rates to encourage regional and national investment in fibre capacity
> Review of misleading product descriptions under existing legislation: FTTC is NOT fibre broadband. It is a copper connection with fibre closer to the end-user than ADSL, which itself had a fibre connection closer to the end-user than dial-up. DOCIS is NOT fibre broadband. It is Coaxial cable connection between the end-user and a fibre distribution point.

Q36a. Would there be benefits to investment from a focus on broadband only services? Are there any barriers to the emergence and adoption of broadband only services, whilst still providing necessary access to emergency services?

- Yes
- (selected) No

Q36b. Please give details.

Consumers have mobile phones which can be used for emergency calls

Q36c. Are there any barriers to the emergence and adoption of broadband only services, whilst still providing necessary access to emergency services?

- Yes
- (selected) No

Q36d. Please give details.

Consumers have mobile phones which can be used for emergency calls

. **Section 5: Facilitating and encouraging investment**

Q37. How might copper access networks evolve over time alongside other access technologies? Is there a role for policymakers in helping manage any transition from copper to other access networks?

Policymakers should understand that copper networks will be replaced over time so should set policies to ensure that teh copper is recycled and not maintained by regulation supported pricing

Q38a.
Views are sought on whether there are any additional actions the Government should consider to ensure that the provision of all areas of the UK's digital communications infrastructure remains competitive in order to ensure that the UK can take full advantage of growth opportunities in the Digital Age.

Providing a stable regulatory and financial investment to encourage infrastructure investment should be the government's number one priority

Q38b.

Aside from legislation and adapting the regulatory framework in the broad sense which other actions should the Government take to encourage investment in communications infrastructure?

No additional views other than as already stated

Q38c. Views are sought on whether there are any additional actions the Government should consider to ensure that potential investment in the provision of digital communications infrastructure offers a suitable risk and reward profile to ensure that they can be financed by the private sector.

No additional views other than as already stated

Q39a.
Views are sought on the case for the UK to invest to gain ‘early mover advantage’.

No additional views other than as already stated

Q39b. Views are sought on what areas in particular the UK should aim to see investment in.

1] Pure fibre FTTH/P 2] High capacity regional and national fibre routes for backhaul

Q39c.
Are there any actions not covered elsewhere in this report that the government should consider to ensure digital communications infrastructure is in place before it is needed and such that it helps generate need?

No additional views other than as already stated

Q40. How might we maximise the current R&D and innovation UK landscape to help take advantage of the opportunities provided by future technologies? What needs to be done by Government and its agencies, and industry to tackle any gaps?

No additional views other than as already stated

Q41. In which future communications technologies that you consider the UK has, or could achieve, an international leadership position?

No additional views other than as already stated

Q42. What more might government and industry do to exploit future technologies, associated new applications and emerging business models?

No additional views other than as already stated

Q43. What role might local bodies have in facilitating the future delivery of digital communications infrastructure?

County, District and Parishes should be allowed to drive the development of their communications infrastructure

Q44. How can councils maximise the digital communications infrastructure in their local area to support their work on economic regeneration?

as above and: 1] Dual source 2] Be allowed to experiment, fail and experiment again

. **Further relevant information not covered by the consultation questions.**

. Please provide details of information you feel is relevant to the development of the Digital Communications Infrastructure Strategy and not already covered by the consultation questions.

Location Data

Location: (51.716293334961, -1.377197265625)

Source: GeoIP Estimation