

Initial Report

Last Modified: 10/02/2014

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

#	Answer	Bar	Response	%
1	Yes, I would like the Government to publish my response.		1	100%
2	No, I do not want the Government to publish my response.		0	0%
	Total		1	

2. 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.

3. Name

Text Response

Chris Rodgers

4. Are you responding on behalf of an organisation?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

5. Organisation name

This question was not displayed to the respondent.

6. Contact email address

Text Response

christopher.rodgers@cardiov.ox.ac.uk

7. Contact address

This question was not answered by the respondent.

8. Please select which category best describes you or your organisation

#	Answer	Bar	Response	%
1	Academia/research		1	100%
2	Broadcasting		0	0%
3	Consumer/user		0	0%
4	Consumer group		0	0%
5	Fixed communications provider		0	0%
6	Industry organisation		0	0%
7	Infrastructure provider		0	0%
8	Internet Service Provider		0	0%
9	Local Government or other public sector		0	0%
10	Mobile communications provider		0	0%
11	Satellite communications provider		0	0%
12	Technology company		0	0%
13	Other		0	0%
14	Business user or business group		0	0%
	Total		1	

9. If other, please give details.

This question was not displayed to the respondent.

10. Is this an appropriate role for Government?

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

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

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

12. If yes, please give details.

Text Response

I believe that the government should impose a form of universal service obligation on British Telecom in light of its near-monopoly on providing broadband access to homes outside metropolitan centres. This would require the local loop to be upgraded to a minimum upstream and downstream bandwidth. This minimum should be computed automatically as some fraction of the average speeds in areas with effective competition. It is unacceptable that large swathes of the country are badly "left behind" as Internet access improves.

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

Text Response

An effective regulator. Subsidy of capital investment for broadband infrastructure to be recouped via taxation of broadband suppliers using this infrastructure in later years.

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

This question was not answered by the respondent.

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

#	Answer	Bar	Response	%
1	I think there are significant barriers.		0	0%
2	I think there are insignificant barriers.		1	100%
3	I do not think there are any barriers.		0	0%
4	I do not think IPV6 is required.		0	0%
	Total		1	

16. How might these barriers be addressed?

Text Response

ISPs are well placed to deliver IPv6 technology when the market demands it.

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

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

18. If so, should this be addressed?

This question was not displayed to the respondent.

19. How might this be done most effectively?

This question was not displayed to the respondent.

20. 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?

Text Response

It would be very beneficial to introduce a truly symmetrical network and to compel local-loop ISPs such as BT to route traffic so that nearby customers can communicate with one-another without their traffic traversing the ISP backhaul links to/from their local community.

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

Text Response

Developed countries with the highest Internet penetration. We should aim to be world leading in Internet provision.

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

Text Response

Bandwidth upstream and downstream. Latency. Price. Guaranteed service availability / failover provision. Time for installation/activation of service. Absence of transfer caps/overage charges.

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

Text Response

A combination of all of these. The regulator should be tasked with revising the weighting between these regularly in order to ensure high quality provision for consumers.

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

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		1	100%

3	Neither Agree nor Disagree		0	0%
4	Agree		0	0%
5	Strongly Agree		0	0%
	Total		1	

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

Text Response

I think that bandwidth demand will continue to rise dramatically. Without government intervention, I expect that rural areas will continue to receive sub-standard Internet access. I do not believe that wireless Internet access will be sufficient to meet this demand without fibre-optic services to the home.

26. 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?

Text Response

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27. 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?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

28. If yes, please give details.

This question was not displayed to the respondent.

29. 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?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

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

This question was not displayed to the respondent.

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

#	Answer	Bar	Response	%
1	Very Unlikely		0	0%
2	Unlikely		0	0%
3	Undecided		0	0%
4	Likely		1	100%
5	Very Likely		0	0%
	Total		1	

32. In what area might it occur?

This question was not displayed to the respondent.

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

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		0	0%
3	Neither Agree nor Disagree		0	0%
4	Agree		1	100%
5	Strongly Agree		0	0%
	Total		1	

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

This question was not answered by the respondent.

35. 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?

This question was not answered by the respondent.

36. 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?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

37. If yes, please give details.

This question was not displayed to the respondent.

38. 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?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

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

This question was not displayed to the respondent.

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

#	Answer	Bar	Response	%
1	Very Unlikely		0	0%
2	Unlikely		0	0%
3	Undecided		1	100%
4	Likely		0	0%
5	Very Likely		0	0%
	Total		1	

41. In what area might it occur?

This question was not displayed to the respondent.

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

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		0	0%
3	Neither Agree nor Disagree		0	0%
4	Agree		1	100%
5	Strongly Agree		0	0%
	Total		1	

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

This question was not answered by the respondent.

44. 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?

This question was not answered by the respondent.

45. 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?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

46. If yes, please give details.

This question was not displayed to the respondent.

47. 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?

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

48. In what way might these wider environmental issues affect any of the

scenarios?

This question was not displayed to the respondent.

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

#	Answer	Bar	Response	%
1	Very Unlikely		0	0%
2	Unlikely		0	0%
3	Undecided		1	100%
4	Likely		0	0%
5	Very Likely		0	0%
	Total		1	

50. In what area might it occur?

This question was not displayed to the respondent.

51. 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?

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

52. Please give details.

Text Response

BT's current network does not facilitate efficient peer-to-peer data transfer. Although peer-to-peer programs have gained a bad reputation because of their use for copyright infringement, on a technical level they make very efficient use of finite network resources. BT (or other utility providers of the local-loop) should be compelled to route traffic so that peer-to-peer transfers between customers in the same local area do not have to travel over backhaul links first. This will maximise the value of the local loop networks in future.

53. 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?

#	Answer	Bar	Response	%
1	Commercial providers will meet demand on a purely commercial basis.		0	0%

2	Some form of public intervention is likely.		1	100%
	Total		1	

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

Text Response

I think the government should mandate a minimum service obligation for premisses situated outside major cities in terms of the local loop and available backhaul links. I suggest that dark fibre to every house in the UK would be a good target to aim for.

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

Text Response

Not sure.

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

#	Answer	Bar	Response	%
1	Scenario 1		0	0%
2	Scenario 2		0	0%
3	Scenario 3		1	100%
4	None		0	0%

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

Text Response

Having worked in academic labs with true >100mbps access to Internet2, I can see that very high speed network access is very useful in many unexpected ways. I believe that demand will continue to rise to meet the capacity that is provided. The recent history of Internet use in the developed world supports my view.

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

Text Response

I have found BT to be a frustrating, lumbering company in my dealings with them. World-class Internet access is a high priority for me, alongside robust electricity supplies, gas supplies and water supplies. I believe that skilled regulation is the only way to ensure we remain at the forefront of developed countries in terms of Internet access and Internet-related employment. Regulation should be targeted to force investment in modern infrastructure and to ensure true competition between customer-facing providers. I believe that regulation on the technical nature of the network that is delivered should be more light touch. The recent example of the superfast broadband rollout, with BT winning every contract, and with a glacial pace of installation is shocking. It ought not to be repeated.

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

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

60. Please give details.

Text Response

High quality Internet access should be viewed as a utility like electricity. Almost every home is connected to the electricity grid. There should be a similar universal provision for internet access.

61. 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?

#	Answer	Bar	Response	%
1	I think there is a role for a revised USO		0	0%
2	I think there is a role for a revised USC		0	0%
3	I think there is a role for both a revised USC and a revised USO		1	100%
4	I do not think a revised USO or USC are needed		0	0%
	Total		1	

62. What might this look like?

Text Response

BT should be compelled to provide dark fibre to every UK home by 2020 and with requirements on space at exchanges to be leased at regulated rates to ISPs to ensure that every UK home has a competitive Internet supply market.

63. 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?

Text Response

If universal wireless data can be provided at a high enough bitrate, it would be reasonable to cease broadcasting TV signals.

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

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

65. Please give details.

This question was not displayed to the respondent.

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

#	Answer	Bar	Response	%
1	Strongly Disagree		0	0%
2	Disagree		0	0%
3	Neither Agree nor Disagree		0	0%
4	Agree		1	100%
5	Strongly Agree		0	0%
	Total		1	

67. How might this be done?

Text Response

Described above.

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

Text Response

I am concerned that telecoms markets seem not to naturally show effective competition, particularly in rural areas. It is vital that every home has access to competing service providers and a high bandwidth infrastructure.

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

Text Response

By setting minimum standards by reference to some type of average of the levels of service available in

metropolitan areas where competition is known to be effective.

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

#	Answer	Bar	Response	%
1	Yes		0	0%
2	No		1	100%
	Total		1	

71. What might these changes be?

This question was not displayed to the respondent.

72. 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?

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

73. Please give details.

Text Response

Many of my contemporaries scarcely use their landline for making/receiving phone calls. My employer is about to transition to an all-IP voice network. It seems that the analog phone service is a historical relic which should soon be allowed to die out.

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

#	Answer	Bar	Response	%
1	Yes		1	100%
2	No		0	0%
	Total		1	

75. Please give details.

Text Response

The legal requirement for emergency access / location information is a barrier. A mandate requiring support for a certain open voice protocol might also be helpful.

76. 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?

Text Response

The government should push hard to drive a conversion from copper to dark fibre-optic provision in the local loop. This is a much more modern and more future-proof technology.

77. 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.

This question was not answered by the respondent.

78. 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?

This question was not answered by the respondent.

79. 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.

This question was not answered by the respondent.

80. Views are sought on the case for the UK to invest to gain 'early mover advantage'.

This question was not answered by the respondent.

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

This question was not answered by the respondent.

82. 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?

This question was not answered by the respondent.

83. 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?

This question was not answered by the respondent.

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

This question was not answered by the respondent.

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

This question was not answered by the respondent.

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

This question was not answered by the respondent.

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

This question was not answered by the respondent.

88. 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.

This question was not answered by the respondent.