Data Communications Company

Consultation on CSPC&S WAN solution.

T3 antennae and alternative option.

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1. Background

The Communication Service Provider (CSP) Central and Southern (C&S) is tasked with providing Wide Area Network (WAN) coverage to allow the communication between Smart Metering Systems and the DCC. CSPC&S have been working towards the provision of a WAN coverage target of 99.25% by January 2021; this target is referred to as the BMax milestone.

The CSP utilises a mixture of technology to provide its WAN coverage, including cellular mast deployment, inter Communications Hub Mesh communications and the installation of T3 antennae. The T3 solution was developed by the CSP as part of their design solution and it has a contractual right to recommend the installation of up to 100,000 T3 antennae as part of that solution. It is projected that the installation of at least ~30,000 T3 antennae will be required to achieve the final 0.5% of the BMax milestone.

The T3 solution requires the installation of an antenna at an end user's premises and has proved problematic since consumers and Energy Suppliers are reluctant to agree to their installation. There has been one T3 antenna installation to date. While the T3 antenna is available and nominated for installation, the reluctance to install them results in some consumers being unable to realise the benefits of smart meters.

DCC has engaged with the SEC Operations Group to consider the issue and potential options and has worked with the CSP to identify a resolution where the installation of T3 antennae is not required. DCC is consulting to seek industry opinions on these options to understand better the most appropriate solution.

Industry discussions have considered whether network evolution could enable a greater WAN coverage without the requirement for the installation of the T3 antennae. Network evolution refers to the improvements of technology which are anticipated to improve the ability of cellular masts and increase overall coverage. However, this presents an unknown in terms of timing and technological improvements and so it is uncertain by when and by what extent network evolution could improve coverage. Given these uncertainties this consultation does not present network evolution as a viable option.

2. Options considered

DCC has identified three potential options to which are set out below. A summary of the benefits and drawbacks can be found in the table below.

2.1. Option One – do nothing

Option One would continue to allow the nomination and installation of T3 antennae to remain part of the WAN solution for CSPC&S. This would allow T3 installation where consumers agree, and those consumers will be able to realise the benefits of smart meters. The CSP would be allowed to continue recommending the T3 antenna for installation at designated premises and to consider these recommendations when calculating WAN coverage available.

It is noted that Energy Suppliers and consumers may still be reluctant to install T3 antennae and so those consumers would not realise smart meter benefits.

This option would result in no additional cost to industry.

Question 1

Do you support Option One as the preferred solution? Please provide a rationale for your response, highlighting any additional benefits or drawbacks.

2.2. Option Two - remove T3 antennae from solution and allow for planned cellular mast deployment over time

Option Two would allow for planned cellular mast deployment to increase WAN coverage over time. This option would not change deployment plans already in place and would not result in additional industry costs. Providing a definitive timeline for this mast deployment is difficult since plans will evolve over time in line with the CSPs existing priorities and changing technologies. However, it can be anticipated to take significantly longer than the solution proposed in Option Three.

This option would allow for the WAN coverage to be met, but only once cellular mast deployment already planned has been completed.

Consumers could realise the benefits of smart meters without the installation of the T3 antenna but would only be available to consumers once additional cellular masts have been deployed in line with current plans.

This option would result in a change to the WAN solution and require Ofgem and industry support to extend or re-baseline the BMax milestone.

Question 2

Do you support Option Two as the preferred solution? Please provide a rationale for your response, highlighting any additional benefits or drawbacks.

2.3. Option Three – remove T3 antennae from solution and accelerate cellular mast deployment

Option Three would require the acceleration of planned cellular mast deployment to provide WAN to properties where the T3 antenna is the suggested solution. Initial assessment indicates that this would require accelerated mast deployment at an additional 149 sites to achieve the BMax coverage. Preliminary deployment costs have been estimated at between £100m to £200m, with operation costs estimated at up to £9m per annum, phased over the deployment time period. As such this option represents a significant increase in industry costs. It is anticipated that the accelerated deployment of these 149 sites could be completed within a four year period, though this is dependent on external factors such as the gaining of planning approval.

This option would allow for current WAN coverage to increase using cellular masts. However, given the planning and actions required to install at each site, deployment would not be completed before the BMax deadline. It is also possible for the indicative costs to increase once more detailed analysis of deployment is completed.

This option would allow consumers to realise the benefits of smart meters without the installation of the T3 antenna but would only be available to consumers once additional cellular masts have been deployed.

This option would result in a change to the WAN solution and require Ofgem and industry support to extend or re-baseline the BMax milestone.

Question 3
Do you support Option Three as the preferred solution? Please provide a rational to your response, highlighting any additional benefits or drawbacks.

2.4. Summary of benefits and drawbacks

Option	Benefits	Drawbacks
Option One – do noting	• No additional industry cost • Allows for the continued nomination and installation of T3 antenna for consumers who agree	• Where T3 antennae are nominated but not installed WAN coverage to BMax levels would not be achieved • Would require undesired T3 antenna installations
Option Two - remove T3 antennae from solution and allow for planned cellular mast deployment	• Allows increase of mast deployment over time, with associated increase in WAN coverage • Would not require undesired T3 antennae installation • Consumers realise smart benefits without undesired T3 antenna installation • No additional industry cost	• Extends the time required to achieve BMax coverage
Option Three - remove T3 antennae from solution and accelerate cellular mast deployment	• Allows increase of mast deployment over time, with associated increase in WAN coverage • Would not require undesired T3 antennae installation • Consumers realise smart benefits without undesired T3 antenna installation	• Significant additional industry cost • Extends the time required to achieve BMax coverage

3. Next Steps

These are the next steps following the consultation closure on 23 October 2020.

DCC will review and collate consultation responses and consider any relevant refinements to the options presented. Options and details of consultation responses will be discussed with SEC Panel and Ofgem to agree the most appropriate way forward.

4. How to respond

Please provide responses by 17:00 on 23 October 2020 to DCC at:
consultations@smartdcc.co.uk

DCC will complete a summary of questions, comments and responses to be shared with SEC Panel and Ofgem.

Consultation responses may be published on our website www.smartdcc.co.uk. Please state clearly in writing whether you want all or any part, of your consultation response to be treated as confidential. It would be helpful if you could explain to us why you regard the information you have provided as confidential. Please note that responses in their entirety (including any text marked confidential) may be made available to the Department of Business, Energy and Industrial Strategy (BEIS) and the Gas and Electricity Markets Authority (the Authority). Information provided to BEIS or the Authority, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 2018 and the Environmental Information Regulations 2004). If BEIS or the Authority receive a request for disclosure of the information we/they will take full account of your explanation (to the extent provided to them), but we/they 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 by us as a confidentiality request.