

Key points for a public body considering building a private network for delivering public services



Based on the experience from the DCMS funded Liverpool 5G projects, we have summarised what we have learned for public bodies interested in the feasibility of using private networks. We have overcome the technical challenges of deploying the network, but the challenge of developing a public sector business model is still ongoing. We have outlined below the approach we would recommend based on our experience to date.

1	Establishing the need – the approach must be driven by current and future service needs.
	<ul style="list-style-type: none"> Establish the connectivity costs incurred by current and future services.
	<ul style="list-style-type: none"> Establish the impact of digital poverty in geographical areas.
	<ul style="list-style-type: none"> Identify specific services that could use a private network and their network requirements. Example services could be in Health, Social Care, Community services, transport, environmental services.
2	Establish existing asset base that can be used to support the network.
	<ul style="list-style-type: none"> Access to fibre. Whilst every lamppost does not need access to fibre there needs to be access at key points.
	<ul style="list-style-type: none"> Access to street furniture.
	<ul style="list-style-type: none"> Access to key community buildings, GP surgeries, Care Homes etc. Determine ownership of key buildings.
3	Establish a coalition of interested public bodies. The approach needs to be place based. No single body will be able to deliver as stackable use cases/applications will be needed to justify the cost of the private network. The approach cuts across infrastructure, digital and service provision.
	<ul style="list-style-type: none"> Establish links to local plans – include Integrated Care Systems, Innovation Plans etc.
	<ul style="list-style-type: none"> Agree a lead partner and senior responsible officer (SRO) before any business planning takes place. Benefits will come from multiple budgets; funding will also have to come from multiple sources. An overarching approach to funding needs to be agreed.
	<ul style="list-style-type: none"> Agree the approach to Social Value – key benefits, how social value will be measured and monitored.
	<ul style="list-style-type: none"> Agree principles of a joint funding approach, which existing budgets will be positively impacted, potential sources of additional funding.
	<ul style="list-style-type: none"> Agree acceptable levels of risk/contingency/optimism bias to be used in business planning.

4	Establish the potential benefits to services of using a private network. Examples include:
	<ul style="list-style-type: none"> • Reduced connectivity cost within services
	<ul style="list-style-type: none"> • Improved service level agreement e.g., for remote health monitoring
	<ul style="list-style-type: none"> • Increased accessibility of services, reducing the digital divide, reducing inequalities, reducing excessive/increasing demand for traditional service offerings.
	<ul style="list-style-type: none"> • Environmental impact e.g., reduced travel to appointments
	<ul style="list-style-type: none"> • Enabling future innovation in services particularly those that will use increase data e.g. video technology enabled care, transfer of MRI scans, automated vehicles etc.
5	Establish the cost of deploying and maintaining a private network.
	<ul style="list-style-type: none"> • Determine the geographic areas and areas of priority for network coverage. For example, in Liverpool we prioritised the streets around a local primary school where we knew pupils did not have access to connectivity at home.
	<ul style="list-style-type: none"> • Determine required size of network to cover required areas and meet the demands of services.
	<ul style="list-style-type: none"> • Determine maintenance requirement and service level agreements needed.
6	Develop a Green Book Business Case.
	<ul style="list-style-type: none"> • Ensure that social value is central to the business case.
	<ul style="list-style-type: none"> • Ensure that all services involved have input to the Green Book process to ensure a thorough understanding of the services involved.
	<ul style="list-style-type: none"> • Ensure the network costs reflect latest policy and market pricing.
7	Mobilise resources to design, deploy and maintain the network.
	<ul style="list-style-type: none"> • Consider procurement approach, taking account of place-based approach.
8	Key specifications required for future proofing network
	<ul style="list-style-type: none"> • Ensure a Stand Alone network is installed otherwise 4G infrastructure will be included both denying the ability to get faster speeds and higher data rates but also limits the life of the network.
	<ul style="list-style-type: none"> • Understand that the network will use 5G equipment. Whilst this is currently more expensive than 4G it will last longer – new equipment is becoming available all the time.