

Small cells deliver smart city technology

We've created this guide to help local councils and municipalities understand the impact of smart city technologies on the existing streetscape.

The digital economy

The **benefits of the digital economy** and smart cities are clear. Local authorities have an important role to play in making connected cities happen. Cities are beginning to install small cells on a wide scale so businesses and the general public can take advantage of new services and ubiquitous connectivity.

Today, forward thinking municipalities are changing the way they work and plan in order to deliver better mobile coverage – and local businesses and the general public are reaping the rewards.

A small cell is a compact, low power device similar in appearance to a Wi-Fi router that creates a zone of mobile coverage

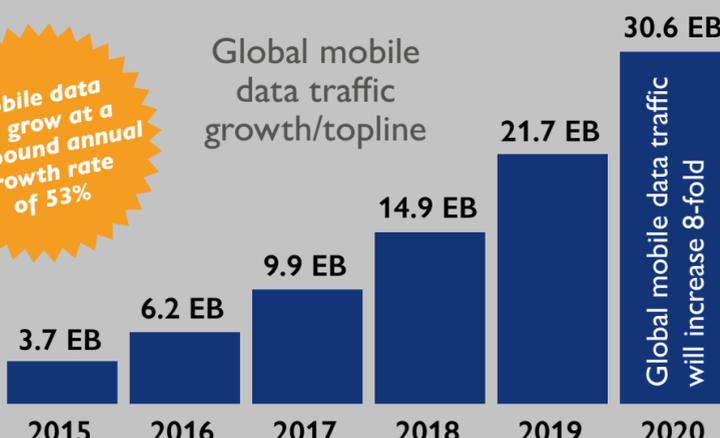


Challenge

People expect to be able to consume high quality mobile data and telecommunications services – but demand is widely outstripping supply.

Mobile data will grow at a compound annual growth rate of 53%

Global mobile data traffic growth/topline



The availability of cell sites to deliver such services using big towers and roof tops is limited and declining. The challenge is further exacerbated if we consider the digital divide between dense urban and more rural areas, where similar scale will be required.

Source: Cisco VNI Global Mobile Data Traffic Forecast, 2015-20

The requirements



People want access to mobile broadband for video and social networking, quality of life and personal connectivity



Businesses want to enable innovation, connectivity, productivity and efficiency



Municipalities need to move towards smart city functionality that delivers: security, critical services, traffic management, emergency response, enabling new business and revenue streams

Three steps for successful deployment



STEP 1
The more locations the better: utility poles, lamp posts, buildings, bus stops, bus shelters, advertising panels, CCTV mountings.

STEP 2
Available uninterrupted power supply.

STEP 3
Easy access to other telecom infrastructure – eg. to a fiber network, wireless hops and the city's own infrastructure.

Local councils can incorporate these considerations into their everyday planning

Managing small cells

How local authorities can manage the smooth implementation of small cells



Incorporate the requirements for connectivity infrastructure into the design of local areas – eg. small cells can be incorporated into existing street furniture.



Class the equipment as having 'de minimus' impact to merit case-by-case planning consideration and provide for zoning consideration to allow adoption within business and residential zones.



Reduced paperwork per application – one piece of paper for approval of an operational deployment