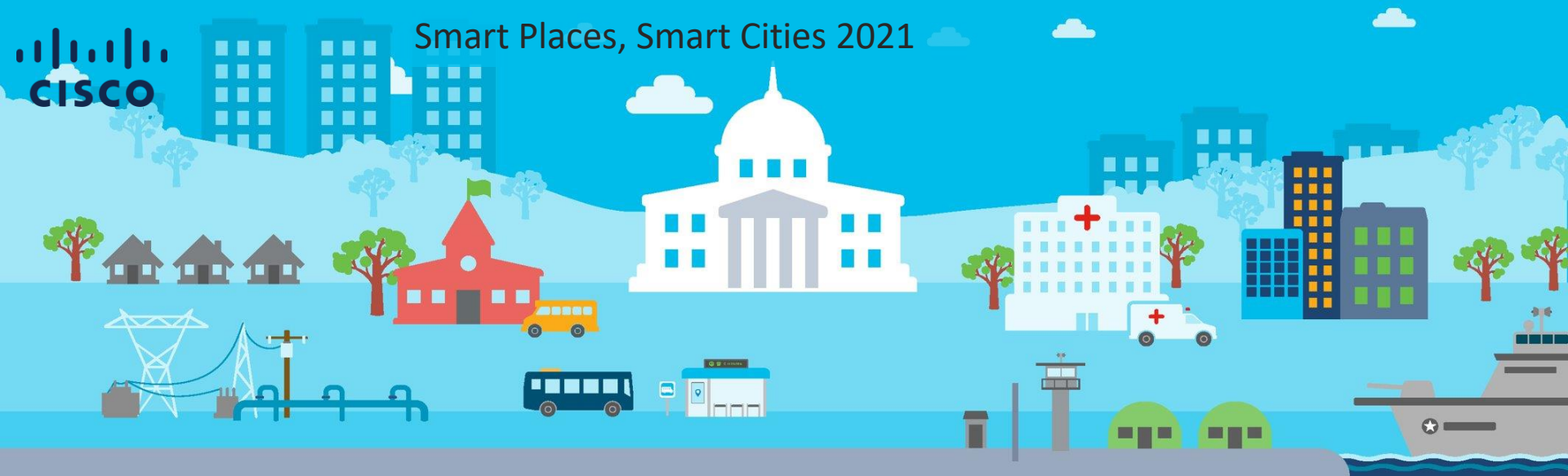Smart Places, Smart Cities 2021

Connected places evolution
Yesterday, today and tomorrow – 5 years of 'smart' cities

Stu Higgins – Head of Smart Cities and IoT (UK)

Towns & Cities have been around for a long time…

- London Founded by Brutus of Troy circa 1000–1100 B.C.
  - *Historia Regum Britanniae - Geoffrey of Monmouth*

- Roman London - 43-410 AD

- The recorded history of Manchester began with the civilian settlement associated with the Roman fort of Mamucium or Mancunium, established around AD 79

- Manchester achieved city status in 1853
  and the Manchester Ship Canal opened in 1894, creating the Port of Manchester

- The earliest inhabitants of the Sunderland area were Stone Age hunter-gatherers (Neolithic Period c. 4000 – c. 2000 BC),

- Recorded settlements at the mouth of the river Wear dated to 674

'Smart' is not new!

- Natural gas was fed through bamboo pipes from volcanic gas leaks to Peking streets for fuel in street lamps as early as 500 years BC

- Ancient Romans used vegetable oil filled lamps in front of their houses

- First organised method of public lightning was in London in 1417

- First coal gas lamp street lighting – London 1807

- First electric street lighting – Paris 1878

- First traffic lights – Salt Lake 1912

- First UK traffic lights – Piccadilly Circus 1927

- First LED Street lighting circa 2010

Relatively speaking…
'Digital' is!

Charles Babbage's Difference Engine project began…

1822

Patent #174465
Alexander Graham Bell
for the telephone…

1876

4

Smart Cities
Connected Places
Digital Places
Smart Places
Digital communities

Things are evolving...

Warning!

Artistic license ☺

Two years ago…

- Pre-Covid

- Lots of PoC's ("turn the lights off when you're done")

- 5G was a promise

- DCMS LFFN had started awarding funding

- People were doing lots of interesting things:
  - Bristol, CityVerve (already finished), London (LOTI established June 2019),
    Newcastle Smart Street (GEoTN), WM5G, 5G Rural First, Smart Mobility Living Lab etc…

- Greta Thunberg (protesting outside the Swedish Parliament 15yrs old – August 2018)

- Some Local Authorities had digital strategies in place, CDO's etc were already appointed in some places

Whole System Approach

Stakeholder Partners

Urban Service Providers

Local & Central Government

Academia

Third Sector, other Agencies & Partners

Health & Care

Performant, high-quality, scalable, secure, reliable, open, interoperable, agile, flexible, innovative

Other data

Outbound Services

Citizen focussed App's

App's for accessing services e.g. Council Services, Parking, AQ levels, local information, mapping etc

Enabling a connected / caring community

Joining up data from multiple sources to provide new insights

Shared spaces

Crowd / Congestion Management

Sample use cases. Different business drivers. Same technology solutions. Focussed on outcomes.

This year

- The world is shifting - not just because of CV-19, but is has 'concentrated the mind'

- Technology can deliver on the promise of 'smart'

- 5G is here(ish), but still looking for a set of good use cases (that other tech' can't deliver) – Wifi6, Open Roaming, LoRaWAN etc…

- LFFN funding is being spent! And lots of existing and new fibre is being lit

- **Tipping Point…**
  - Super fast Routed Optical Networking – regional scale, 'unlimited', affordable connectivity
  - SASE & Cyber - secure connectivity is critical
  - Move to different modes of operation

- Social Value, Sustainability, Circular Economy – G7 / CoP26 / Daughters homework!
  - 1st Jan 2021 – Updates to the 2012 Social Value Act
  - PPN 06/21 'Taking account of carbon reduction plans in the procurement of major gov' contracts'.

- NCSC 14 Principles for Connected Places

- Considering the value of data

A moment in time

but one which will set the direction of digital communities for the next 10+ years

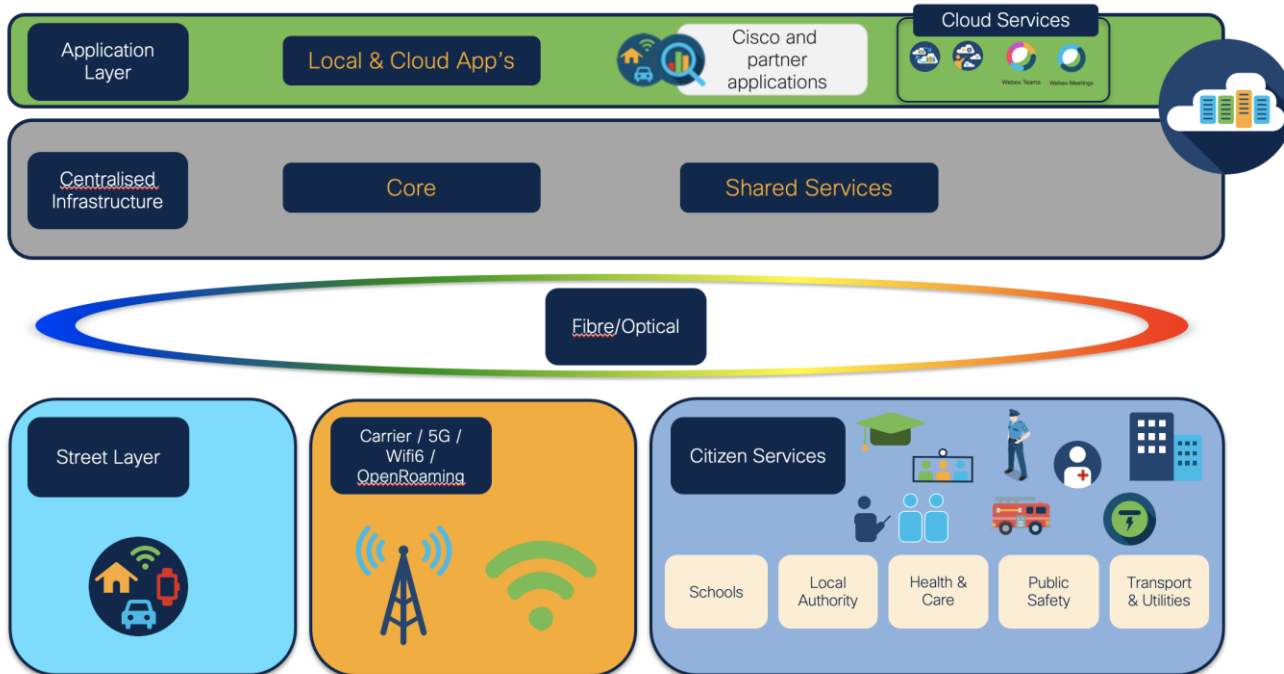"Imagine what you could do if you had unlimited bandwidth to connect everything and everybody"

A chance to think differently about everything

And the next two…

- The world has shifted

- Fibre infrastructure is spreading, providing 'unlimited' secure bandwidth enabling connected places to really start to deliver   - GMCA will deliver GM One
  - supporting the many aspirations for a truly digital connected region
  - things are starting to be done differently – moving data to the best resource to use it

- High-speed, affordable connectivity is more available than ever

- People are sharing data across organisations

- The default answer to "can we do 'x'" starts to be "yes"

- Laying the foundation of a new era for connected places

- Being asked "what are you doing to help with our Sustainability / Carbon Net Zero targets / aspirations?"

- Monetising data is starting to become a reality

- And of course, we are talking about 6G and beyond!

The digital foundations of a connected place

Focussing on better outcomes

Thank you