

InLinkUK: Shaping Urban Communities in London

Smart cities need to make sure that residents and visitors can easily get online, whether it's to access city services or use maps to find the museum they're hunting for. When it became time for London to replace their public payphones, it was the perfect opportunity to create a network of smart structures.

InLinkUK from BT is rolling out this new communications service which combines the best aspects of traditional public phones with modern technology and wayfinding. Each InLink offers free, fast Wi-Fi, free calls to landlines and UK mobiles, device charging and access to maps, directions and city services through an embedded Android tablet, while acting as a DOOH platform.

We spoke to Matt Bird, General Manager at InLinkUK, about the technology the project uses, challenges faced and how he sees it changing the cityscape.

Can you give an overview of InLinkUK?

The story starts in New York, with the [LinkNYC project](#), where all the payphones are owned by the city. The City of New York tendered out and they said, "Look, we want something that's going to be a bit smarter, more intelligent and future-focused."

Intersection, one of InLinkUK's parent companies, then designed a new product from the ground up to answer that tender, which they won. They've been deploying that solution throughout New York for almost two years now.

The global rollout was to start in the UK, so Intersection partnered up with our other parent company — UK-based out-of-home advertising specialists Primesight, leaders in OOH advertising — in creating InLinkUK. InLinkUK has an exclusive commercial agreement with [BT](#) because they own most of the country's payphones.

We work to take out some of the older payphones out and replace them with the new smart city product, which we call InLink.

What are the project's main goals?

What gets me out of bed in the morning is making a difference in the communities we operate in. These communities include more than just people who live in an area, extending to people who work in and visit an area.

We want our product to make a difference by helping communities come together more. Connectivity is a big part of that and one of the reasons we offer incredible ultra-fast Wi-Fi for free.

We also offer free calls. We are replacing payphones and while we don't classify ourselves as a phone box, we still provide phone calls. The big difference is that calls are free.

By offering Wi-Fi and calls for free, along with other features on the tablet that we provide, we can offer services to communities - whether they are residents, visitors, or workers in those areas.

What is the purpose of including calls?

It's almost an afterthought in some respects. We're replacing payphones, so communities should still be able to make calls from an InLink. We do have a very large number of people who make short phone calls, usually to say, "I'm running late" or "My phone's battery is dead".

We can offer these free phone calls and you can call anywhere in the UK including mobile phones, which is quite unique. Being able to have that ability to make phone calls is still a differentiator as well as having ultra-fast Wi-Fi. So if you do want to use your mobile phone, you can still get online without using any of your own mobile data.

Does InLink have wayfinding capabilities?

Wayfinding is available to you in a very dynamic way on the tablet as you can open up Google Maps and see where you are on that map. You can search for businesses and for restaurants and even call them directly, through the tablet, to make a booking.



As you've been rolling this out in London, what have been some of the main learnings?

I'd like to pretend this is easy but, clearly, there are lots of challenges. We're brand new — we only launched at the end of June 2017.

One thing that's useful to share is the planning process. We work in a very collaborative way with local authorities, working with them to establish the best location for InLinks. We don't assume that just because there was a payphone there, that's the right location for a smart city device. The features and functionality are different.

However, for all councils funding and resource are challenges and while the InLinks are free to the councils, they still require us to go through a process with them to get planning permission. Smart cities and their features and functionalities also need to be more standardized. This would result in recognition of what 'ultra-fast Wi-Fi' is, for example.

Currently, it's easy to say Wi-Fi is available even if people aren't getting useful speeds, whereas we put a gigabit of capacity into every InLink. That's 1,000 megabits per second shared between users. Without official recognition for market type services, whether that's connectivity or sensors, it's very difficult for city planners to take this into consideration.

We are always transparent in our approach and go in with expressed consent for digital advertising because that is how we are funded. Without statutory recognition for what a smart city and its features and services are, it has been challenging for councils to take this into consideration.

The definition of smart cities is varied. Do you think this will become standardized within the next decade?

I hope it'll be a bit quicker than the next decade. We'd love to see some general recognition at government level that planners can then use.

City planners need this help. Now there is no standard that they can benchmark against or compare different propositions or activities with. We want to help them and to give them something that they can work with.

Were there any challenges or specifications that you needed to consider with the InLink product itself?

When the original product was designed, we wanted something that was high quality and attractive, but we also wanted something that would age well and still look attractive in 10 years' time.

So we look after all the InLinks on the street — any graffiti or damage is repaired and the InLinks are maintained to a very high standard.

We also wanted it to have a small footprint. On average, we remove two payphones for every InLink we put in. We want InLinks to be better for the environment and they do take up significantly less pavement space than the payphones they replace.

We are operating on streets across the UK so we need to be able to operate in temperatures comfortably ranging from -20°C to 40°C. The technology must suit very harsh conditions. The level of quality that we wanted and the constraints that we had when we did the original design did make it very difficult, however, we've now ended up with a product that includes the quality we were striving for.

We use cast aluminum on the chassis that lift up the two digital advertising displays above all the street clutter. And we've managed to get that small footprint.

When you're talking about advertising, what were you looking for in terms of digital signage?

For the displays, we use [Samsung Display LCD panels](#) with custom backlights. With this, we get something that looks nice. It is very sharp, which is great for advertisers, but equally for the communities we operate in. Nobody wants to see poor quality displays – they want something that looks good on the streets.

We use a lot of industrial grade components and that means that we can dissipate a lot of the heat that is generated in the most efficient way. We utilize the best technology to give us the high quality that we ultimately wanted.

How does InLinkUK encourage community engagement and the bridging of digital divides?

InLink is as inclusive as any product possibly could be. The tablet is at wheelchair height, for example. We also have braille on the tablet and it talks back. So from general accessibility, we're working hard to ensure that our services are as inclusive as possible.

We also offer free ultra-fast Wi-Fi that has no conditions or ties. When you register for the Wi-Fi service, we only ask for your email address. We don't use it for marketing or advertising. We only use it for keeping you informed about the service, such as terms and conditions and privacy policy changes in the future. We keep it simple.

On the digital advertising displays we don't just show paid advertising. We provide councils with a percentage of screen time that they can use to engage with the community that they operate in. We work with them to display their content on our screens. I've been really impressed with the councils and the content they've created. What Southwark Council in London has created, for example, is high quality and impactful. They've done such a good job putting it together.

As well as providing council content for free, we also reinvest in our content for communities. We create our own information led content to engage with all parts of a community. Essentially we want this content to be the community notice board.

At the moment, the content we create to add value to the community is on display at least 5-10% of the time. This content might promote free events or community group meetings in the area and will soon give live transport updates. If you're commuting on the London underground, you will be able to walk down the street and see that your tube line is not working. Or if there are delays that's fine — you can turn around to take an alternative route. You don't have to go all the way to the tube station to be disappointed. We invest in content like this because we want InLinks to be noticed, used and loved as part of the community.

To stay connected, you can [follow InLinkUK on Twitter](#) or find out more about InLinkUK and the InLink project [here](#). Or read our nine expert predictions to learn more about the [future of smart cities](#).

