

VodafoneThree

LOST SITES, LOST SIGNAL

The Impact of Notices to Quit on Londoners



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Definitions

Notice to Quit (NTQ)

A Notice to Quit is the legal mechanism under the Electronic Communications Code used by a landowner to terminate a telecom operator's right to keep equipment on their property, such as a rooftop antenna or a cell tower. This triggers an 18-month notice period during which the operator must vacate the site. Once that period has lapsed, an operator may be able to install a temporary mast for a further 18 months under permitted development rights, while the provider searches for a new site and engages a new landlord. Temporary deployment is not guaranteed. Once this 18-month temporary window has elapsed, all mobile equipment must be removed. Full planning consent for a new permanent mast site in London often takes around 5 years on average, sometimes longer.¹ This can result in a functional not-spot that can persist for several years, impacting an operator's ability to provide continuous service to its customers.

Functional Not-spot

An area where a mobile phone appears to have signal, but the network has become so congested or degraded that it cannot meet local demand. As a result, mobile data services do not work reliably in practice.



Executive Summary



“Fast, reliable and widely accessible connectivity underpins economic growth and drives innovation, delivering real benefits for people and business across the UK. It ensures everyone, no matter where they live or their circumstances, can fully participate in today’s digital economy.”

Department of Science, Innovation and Technology, February 2026

We all know how frustrating it can be when a mobile cuts out on us. As we get to a train gate, the ticket won't load. On a sunny day, using live locations to meet up and organise a picnic or a drink, the map you need will not update. Calling your elderly parents or a work contact to say you're running late to an appointment as you walk through the city, just to have your call cut out without warning. It happens to thousands of Londoners every day, in small pockets of the city where mobile signal has degraded.

Any Londoner will recognise these moments. But what most people don't realise is that the dropped call or buffering video usually isn't down to a lack of investment in infrastructure. It's because redevelopment keeps forcing mobile sites to move or disappear altogether.

Mobile connectivity is now part of London's basic infrastructure. This is why the city and its operators have invested in a network that offers almost complete coverage. It underpins the everyday things that keep the city moving: checking transport times, making payments, using services, staying in touch and feeling safe.

For many Londoners it's also the main way of getting online when fixed broadband or Wi-Fi isn't available, isn't reliable or doesn't suit. When it fails, even on a single street or station approach, the effect is immediate and personal.

That connectivity depends on physical sites. When mobile equipment is removed from a rooftop, the signal it supports can weaken or disappear in the surrounding area. Notices to Quit can therefore have direct consequences for local coverage, because they require operators to leave sites where equipment is installed, often because a building is being redeveloped, refurbished or used for another purpose.

The result can be a local functional not-spot, an area with differentiating degradation of network quality. These gaps are often small, but they can affect busy places such as station approaches, shopping areas, housing estates, markets, venues, parks or office districts. In a dense city, even a limited loss of coverage can affect many thousands of people over the course of a day.

Polling by Survation for this report shows that this is already a practical problem for Londoners. Six in ten say they have experienced poor or no mobile signal when they needed it in the past year. Applied across London's adult population, this would be equivalent to around 4.2 million adults.

In the last 12 months:

-  **2 million** adults were unable to use maps or navigation properly.
-  **1.7 million** adults were unable to check transport information.
-  **1.3 million** adults were unable to contact someone when they needed to.

The same issue affects London's economy. Mobile connectivity is now part of the working day, particularly for people who move between homes, offices, clients, venues, stations and appointments. Around 2.2 million Londoners rely on mobile signal or data every day at work or study because Wi-Fi is not good enough. Poor signal can therefore mean lost time, missed messages and more difficulty completing basic work tasks.

The polling also shows that more than a third of Londoners are already changing their behaviour because they do not trust mobile signal to be available. These behaviours point to the hidden cost of poor signal. It means people have to plan more, rely on back-ups and make less convenient choices. For some people this is frustrating. For others it affects independence, confidence and access to places they use regularly.

Poor connectivity also has an inequality dimension. Some Londoners can easily switch to home broadband, office Wi-Fi or another device. However, across the market, others have fewer alternatives. The polling suggests that private renters and social renters are more exposed because they are more likely to depend on mobile data for everyday connectivity:

-  **66%** of social renters rely on mobile signal or data every day at home when Wi-Fi is unavailable, unreliable, not secure or not convenient.
-  **Around 45%** of renters use their mobile phone as their main route to the internet, compared with 32% of outright homeowners.
-  **Eight in ten** Londoners say it is important for feeling safe and secure, and more than half say it is very important.

This has both an economic and social cost. We estimate that London's economy loses a minimum of around £2.7bn per year in economic output because of notices to quit. Around 20% of London's high streets are affected, and 3 of London's 5 largest rail stations are affected by NTQs.

Lost mobile sites can therefore have real consequences for daily life, work, access to services, safety and confidence. If London is to remain connected, productive and accessible, the city needs a planning and policy environment that protects coverage and enables replacement sites to be delivered before local signal degradation becomes a lasting problem.

This report makes the following recommendations:

- 1** Boroughs should provide **earlier visibility** and **practical support** where redevelopment affects telecoms sites. Boroughs should provide more active support to help prevent avoidable loss of connectivity.
- 2** The GLA should give **clearer recognition to NTQ risk** in the new London Plan, which is currently under consultation.
- 3** The UK Government should reform planning and policy frameworks to **protect existing mobile connectivity**. This should include amending pre-application requirements for developers so that operators are consulted and made aware of pending NTQs at the earliest possible stage, giving them a longer line of sight before site loss. The government should also extend temporary site rights from **18 to 36 months**, so operators can maintain temporary coverage for longer while a permanent replacement is secured.





What are Notices to Quit?

Mobile coverage depends on physical infrastructure. In London, a large proportion of mobile phone masts sit on rooftops. These masts carry signal into streets, stations, housing estates, town centres and busy commercial areas. The trouble is that in a city as fast-moving as London, these sites are constantly at risk of being displaced by redevelopment. A rooftop gets turned into a garden, solar panels are installed, extra floors are added, a building is converted from flats to offices (or the other way round), or sometimes the entire building is knocked down and rebuilt. When a rooftop site is removed, the coverage it provides can weaken or disappear from the surrounding area.

A Notice to Quit is a legal notice requiring a mobile operator to leave a site where its equipment is installed. In practice, this often means masts and antennae being taken off a rooftop because the building is being redeveloped, refurbished or repurposed.

The creation of functional not-spots is usually the result of the following process: under the Electronic Communications Code (ECC), once an NTQ is served, an operator has an initial 18-month notice period before it has to vacate the site. After that, an operator may apply to put up a temporary mast for a further 18 months under permitted development rights – but this is not a guaranteed fallback.

Temporary deployment depends on navigating a separate set of practical and regulatory challenges: securing a suitable location nearby, arranging a power supply and connection to network infrastructure, meeting health and safety requirements and managing local planning sensitivities.

There is typically a gap of several months between a site going offline and any temporary solution being operational, and in some cases a temporary mast cannot be deployed at all. In London, a permanent replacement very often takes three to six years to secure, and sometimes eight or more, so even where a temporary solution is achieved, significant coverage gaps often remain. The result is a local functional not-spot.

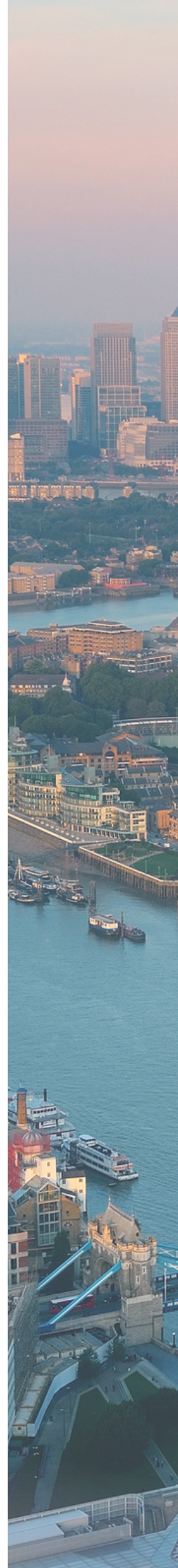
These functional not-spots are not always very visible on a map, which is part of the problem. While some highly localised areas lose coverage completely, the true impact is often not apparent on a basic "coverage map". In practice, the network has been degraded: where it could once carry large quantities of data and meet local demand, it may now only support phone calls. This is because the coverage is being in-filled by another local site, which is often further away and is itself affected by the additional capacity demands created by the lost site. Even users near retained, live sites that are absorbing the extra load can experience lower data speeds as those sites take on the added demand.

Replacing a lost site is difficult in London. A new site has to be close enough to fill the same area, it needs the right height and position as well as power and fibre, a willing landlord and planning consent. In central London, suitable building availability is further limited by the increased density of listed buildings and conservation areas.

86 sites off air; a further 31 due to be switched off by November 2026



Planning processes add further delay. Boroughs take different approaches to telecoms infrastructure while pre-application requirements and fees vary. Where feasible, an operator can install a temporary mast for 18 months under permitted development rights, though this is not always achievable and usually takes several months to arrange after a site goes offline. Different boroughs across London have different processes to manage NTQs, but it is not uncommon for the planning process to take around 5 years with VodafoneThree's longest running planning process following a Notice to Quit running to 8 years.



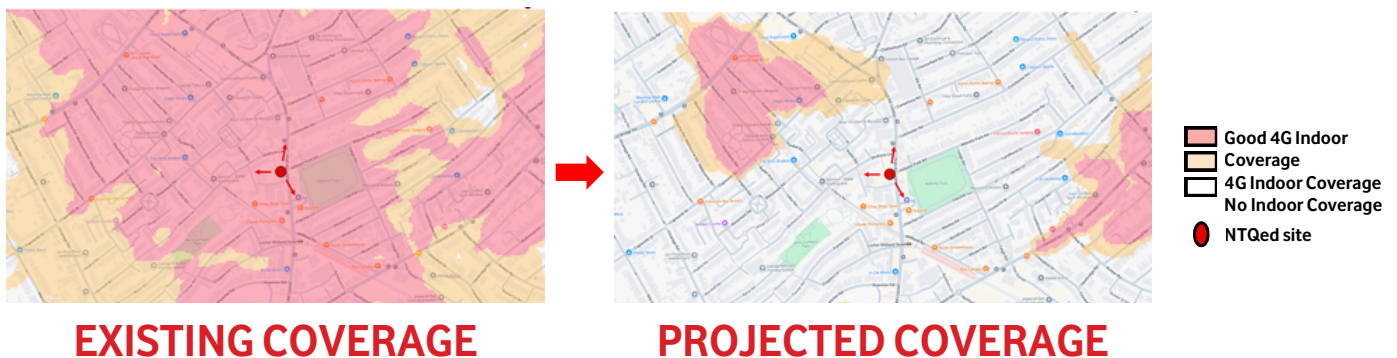
The Economic Impact of Notices to Quit

On average any NTQ will immediately impact 1,500 Londoners in the surrounding areas². Across national network operators this means that up to 450,000 Londoners could be living in a functional not-spot.³

Case Study: An NTQ in Leyton

The highest number of residents affected by an NTQ will be in Leyton, in an area of high multiple deprivation, where nearly **10,000** residents live with degraded or non-functional mobile data. However, the static number far underestimates the total number of people affected. The NTQ sits across the High Road, next to Leyton Midland Road overground station. According to the Office of Rail and Road, Leyton Midland road is the main origin or destination point for over **400,000** journeys every year.⁴

Every NTQ has a massive impact on local people



This is true across the network. Of the currently live NTQs across VodafoneThree's network, 38% sit on or immediately adjacent to one of London's over 600 high streets⁵. Estimating across the major national network providers, this means that roughly 20% of London's high streets have a functional not spot.⁶

Similarly, NTQs affect sites either directly or partially over 20 rail, underground, or overground stations. London has 719 operating rail stations of all types across its network.

Our estimate is that across all major network operators, around 60 stations are affected by an NTQ at any given time.



The Economic Impact of Notices to Quit

Given the increased density of NTQs within central London boroughs, this affects a disproportionately high share of passenger journeys.

It is hard to estimate the exact number of passenger journeys affected, because of the different sources of data used to collect passenger journeys between Overground, National Rail, and Underground services.

However, of the analysed data available, 3 of the 5 most used National Rail stations in London are currently affected, at least in part, by an NTQ.⁷

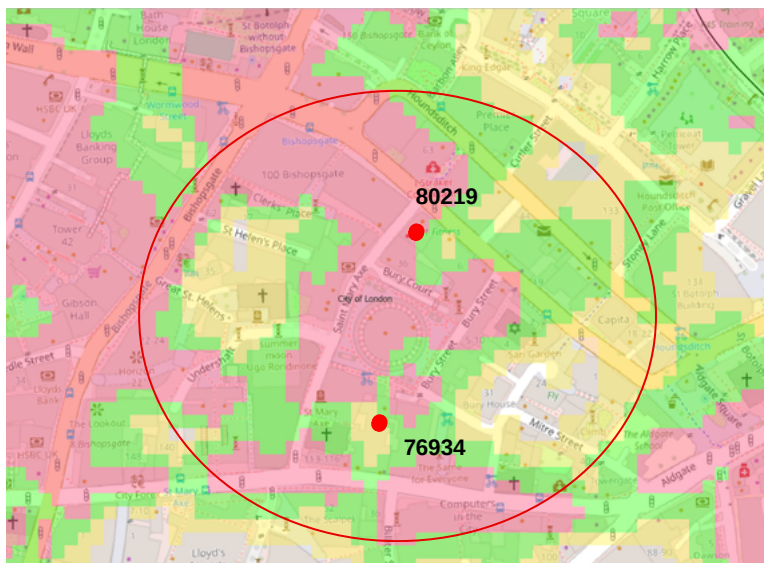
Across VodafoneThree's network, a disproportionately high share of NTQs are in high productivity areas. More than 1/3rd of live NTQs are in the **City of London, Westminster or Camden**. These areas have a Gross Value Added (GVA) per capita of more than triple the London average.

As a result, the impact of degraded network coverage is particularly high. To conservatively estimate the economic cost, we calculated the overall productivity loss of those customers living in a functional not-spot. Our estimate is that roughly than **£2.5m** in economic output is lost in London every single day owing to NTQs across London.

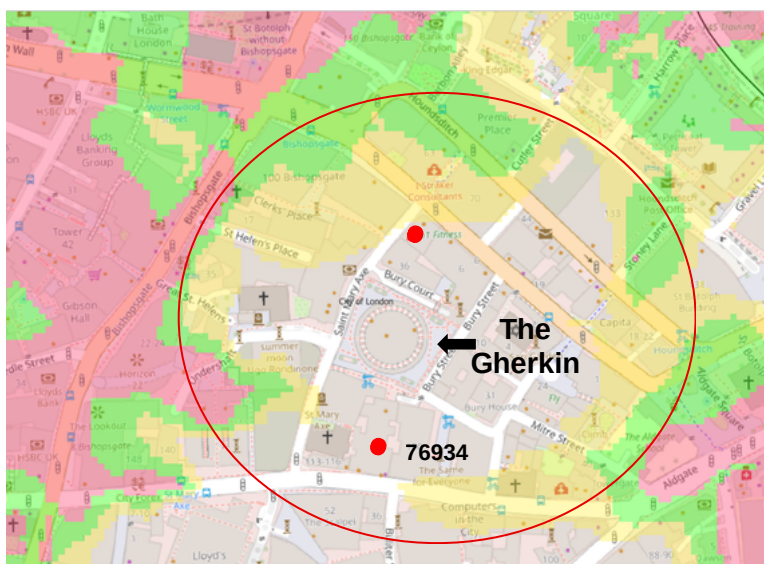
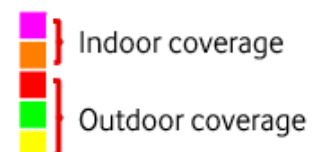
This means annually, around **£900m** in economic output is lost every year across VodafoneThree's networks in London. The likely figure is much higher owing to the dynamic effects discussed above.

This means that across the market we would expect that London is losing around **£2.7bn** per year in economic output owing to the impact of Notices to⁸ Quit.

Two more have created a coverage hole in the heart of the City of London



PREVIOUS COVERAGE



COVERAGE GAP

Coverage around the Gherkin both prior to (Map 1) and subsequent to an NTQ. Source: VodafoneThree

Equally important sites impacted by NTQs are those catering to tourism, intra-London travel and hospitality. Around 10% of NTQs were at high footfall or tourist sites. These range from Regent's Park and the London Olympia to Brentford Football stadium. Each of these functional not-spots reduces capacity and worsens the user experience. We estimate that across these sites up to 29 million visitor experiences could be affected by NTQs just across VodafoneThree's network annually, not counting other network operators.⁹



How Do Notices to Quit Affect Londoners' Lived Experience?

Londoners do not use mobile connectivity as a consumer luxury. For many, mobile data is one of the primary ways they access the internet and is an essential tool for going about their daily lives. Mobile signal is used for banking, travel, work messages, public services, maps, tickets, payments and staying in touch. In some households, mobile data fills the gap when fixed broadband or Wi-Fi is unavailable, unreliable, not secure or not convenient.

That makes poor signal more than a consumer irritation. It can affect how citizens move around the city, manage daily tasks, keep working and stay connected to others. When a local area loses reliable coverage, the impact is felt in ordinary moments: loading a map, checking a train platform, opening a ticket, making a payment, contacting a colleague, messaging a family member or looking up urgent information.

The impact of functional not-spots in London in the last 12 months:

- **28%** could not use maps or navigation properly because of poor or no mobile signal.
- **24%** could not check public transport information.
- **21%** were delayed.
- **19%** could not contact someone when they needed to.
- **19%** had difficulty making a payment or using a banking app.
- **15%** could not access help or urgent information.

If applied across London's adult population, this is equivalent to around **2 million adults** being unable to use maps or navigation properly, around **1.7 million** being unable to check transport information, and around **1.3 million** being unable to contact someone when they needed to.

Polling suggests that six in ten Londoners have had poor or no mobile signal at a moment when they needed it in the last year. If applied across London's adult population, that is equivalent to around **4.2 million** adults per year. These are basic tasks in a modern city. Transport information, tickets, banking apps, maps and messaging are built into how London works. When signal is unreliable, even in a localised way, it can have significant ramifications for an extremely mobile population. People lose time, confidence and control over everyday decisions. These failures cluster around the most ordinary tasks.

Over the past year, the most common was simply trying to find your way: roughly **2 million** adults couldn't use maps or navigation when they needed to. Close behind came the basic business of moving around the city, with about **1.7 million** unable to check transport information, and, more seriously, around **1.3 million** couldn't reach someone in a moment of need. When signal fails, it fails at exactly the points where Londoners are relying on it to act.

Being able to work depends on reliable signal

Mobile connectivity is an essential part of London's working day. Many workers use mobile data because Wi-Fi is unavailable, unreliable, insecure or inconvenient. Others rely on their phone because their job is mobile by nature.

The polling finds that seven in ten Londoners in work or study say reliable mobile connectivity is important for doing their job or studying. Nearly half say it is very important. Almost half rely on mobile signal or data every day at work or study because Wi-Fi is not good enough.

Poor signal can therefore affect productivity directly. It can prevent people from sending emails, messages and making calls. It can make it harder to contact colleagues, clients or work contacts. For people working across the city, the phone is not just a device they use between tasks. It is an essential part of the task.

Mobile signal and work

Among Londoners in work or study:

- **71%** say reliable mobile connectivity is important for doing their job or studying.
- **45%** rely on mobile signal or data every day at work or study because Wi-Fi is unavailable, unreliable, not secure or not convenient.
- **35%** experience poor or no signal near their workplace or place of study at least weekly.
- **51%** say poor or no signal would make work tasks such as emails, calls or messages difficult.
- **49%** say poor or no signal would make contacting colleagues or work contacts difficult.

Applied to London's employed population, this suggests around 2.5 million employed Londoners would find poor signal made work-related tasks difficult, and around 2.2 million rely on mobile signal or data every day at work or study because Wi-Fi is not good enough.

This matters for office workers, but it matters even more for people whose work is tied to movement. Delivery riders, carers, shift workers, tradespeople, hospitality staff and people travelling between appointments all need reliable connectivity during the day. If signal fails, they may lose time, miss instructions, fail to confirm jobs, struggle to contact customers or be unable to receive updates.

The same applies to small businesses. Poor signal can affect payments, bookings, delivery coordination, staff communication and customer service. These may not always appear as headline economic losses, but they are real costs in the daily operation of the city.

People are planning around failure

Another sign of the problem is that Londoners are already adapting their behaviour.

The polling suggests that people are building in back-ups because they do not trust signal to be available. Some use public Wi-Fi even though they would rather not. Some take screenshots or print tickets. Some download maps or information in advance. Some allow extra time for journeys. Some avoid particular places or routes.

How Londoners work around poor signal

Polling suggests that Londoners are already changing their behaviour because of unreliable signal:

- **35%** have used public Wi-Fi even though they would rather not.
- **28%** have taken screenshots or printed tickets or bookings.
- **24%** have downloaded maps, tickets or information in advance.
- **21%** have allowed extra time for a journey or meeting.
- **13%** have avoided certain areas, venues or routes.
- **11%** have avoided going out alone.

These behaviours show that poor signal creates hidden costs. It asks people to plan more, wait longer, carry back-ups and make less convenient choices. For some, that is annoying. For others, it affects confidence, independence and access to the city.

Some Londoners have fewer alternatives

Poor signal doesn't affect everyone equally. For a Londoner with reliable home broadband and office Wi-Fi, a functional not-spot is a temporary inconvenience, an annoyance between two working connections. For a Londoner who depends on mobile data to get online at all, the same not-spot is a barrier to doing basic things: banking, making bookings, applying for jobs, contacting people. The same weak-signal street, the same lost site, can have a completely different impact depending on who's standing in it.

The polling suggests that the strongest inequality story is about resilience. Some Londoners depend more heavily on mobile connectivity because fixed broadband or Wi-Fi is unavailable, unreliable, not secure or not convenient. When signal fails, they have fewer alternatives.

This is especially true for renters and social renters. Two-thirds of social renters say they rely on mobile signal or data every day at home when Wi-Fi is not good enough. Renters are also more likely than homeowners to say their mobile phone is their main way of accessing the internet.

Public services, banking, transport and work are increasingly digital by default. A person with good fixed broadband may experience poor mobile signal as a temporary inconvenience. A person who relies on mobile data may experience it as a barrier to doing basic things.

Connectivity and resilience

Polling suggests a resilience gap:

- **66%** of social renters rely on mobile signal or data every day at home when Wi-Fi is unavailable, unreliable, not secure or not convenient.
- **47%** of private renters and **44%** of social renters rely on their mobile phone as their main way of accessing the internet, compared with **32%** of outright homeowners and **36%** of mortgaged homeowners.
- **21%** of private renters say they limit what they do online because of mobile data costs or limits, compared with 11% of outright homeowners.

That is why the same weak-signal area can have different impacts. It depends on who is using it, what they are trying to do, and what alternatives they have.

Safety and confidence

Reliable signal also affects how safe people feel in the city.

Eight in ten Londoners say reliable mobile connectivity is important for feeling safe and secure. More than half say it is very important. Women are also more likely to feel exposed without it, with nearly half of respondents saying a lack of signal would make them less confident moving through an area, compared with just over four in ten men. And for some, the worry goes further still, shaping what they actually do. Around **13%** of women have avoided going out alone because of concerns about signal.

The polling does not prove that poor signal prevents people from contacting emergency services. The safer conclusion is that Londoners see reliable connectivity as part of their ability to access help, information and contact with others. That sense of security shapes behaviour in places people use all the time. If someone knows the signal drops on the walk home from a particular station, or in an unfamiliar area after dark, it can change what they do: they might avoid the route, decide not to go alone, leave earlier, or arrange to check in with someone first. Eleven per cent of Londoners have avoided going out alone because of unreliable signal. For them, a lost site isn't a technical fault, it limits where they feel able to go.

More than half of Londoners say having unreliable mobile signal for several months in an area they regularly use would be a serious issue. That finding goes to the heart of the political case. Persistent poor signal has implications for how confident people feel to move freely around their city.





Recommendations and Conclusions

Mobile connectivity is an essential part of London's everyday infrastructure. When network sites are lost through Notices to Quit, the impact is not limited to network operators. It is felt by Londoners in ordinary moments, from checking a route or loading a ticket to contacting a colleague, customer, friend or family member.

The evidence in this report shows that localised functional not-spots can have wider social and economic consequences. The challenge is therefore to prevent avoidable gaps from emerging in the first place. That requires earlier visibility of risks, better coordination between public bodies and operators, and stronger planning and policy frameworks that recognise mobile connectivity as essential infrastructure. The following recommendations set out practical steps for boroughs, the GLA and UK Government.

Boroughs should provide earlier visibility and practical support where redevelopment affects telecoms sites.

Boroughs should give operators earlier sight of redevelopment proposals that may affect telecoms infrastructure. They should strengthen officer relationships with operators so NTQ risks are identified sooner. They should also make greater use of council-owned assets to support replacement solutions. Where specific high-risk cases arise, boroughs should provide more active support to help prevent avoidable loss of connectivity.

The GLA should play a stronger coordinating role where redevelopment threatens mobile connectivity.

The GLA should give clearer recognition to NTQ risk in the new London Plan, which is currently under consultation. It should also play a stronger coordinating role where redevelopment threatens existing connectivity. London-wide mechanisms should be improved so viable replacement options can be identified earlier. The GLA should also reconsider tools that map connectivity risks against public-sector and developer-owned assets.

The UK Government should reform planning and policy frameworks to protect existing mobile connectivity.

It should introduce connectivity assessments to pre-application requirements so that developers are required to consult mobile operators before submitting planning applications for developments that would affect existing telecoms infrastructure. This would give operators earlier sight of pending NTQs and more time to identify replacement solutions. The NPPF should provide stronger protection against the avoidable loss of mobile connectivity caused by redevelopment. The government should also extend the permitted development period for temporary mobile sites from 18 to 36 months, recognising that in dense urban environments, particularly in London, permanent replacement sites routinely take several years to secure.

Reliable connectivity should be a given in a global city like London and, with the right foresight and coordination, it can become a reality.

Endnotes

1. Based on VodafoneThree's operational data across its London estate. The fastest processes last around two years and VodafoneThree's longest running planning process to re-site a mast is 8 years.
2. Estimate of retail customers only. Business customers were excluded for the purposes of population estimates. Estimates derive from a sample of 66 NTQ sites.
3. Population estimated using customer share.
4. Estimates of station usage, <https://dataportal.orr.gov.uk/statistics/usage/estimates-of-station-usage>
5. Supporting High Streets, GLA, <https://www.london.gov.uk/programmes-strategies/shaping-local-spaces/high-streets/supporting-high-streets>
6. This is an indicative estimate, there may be some duplication where multiple sites affect the same high street, although there is no duplication across VodafoneThree's sites.
7. Estimates of station usage, <https://dataportal.orr.gov.uk/statistics/usage/estimates-of-station-usage>
8. In order to avoid any duplication, business customers, who are the most likely to have multiple mobile sims or multiple providers, were excluded from this calculation using VodafoneThree internal data. Again it was assumed that business customers are roughly equal across all network operators.
9. Estimates of visitor numbers were taken from official websites for the most recent year available. This figure is true as at July 2026. As NTQs come online and offline this figure may change significantly.

Polling for this report took place between 15th-20th May 2026 and was undertaken by Survation.

An aerial night photograph of London, showing the city's lights reflecting on the River Thames. The Tower Bridge is prominently featured in the lower right, illuminated with its characteristic white and blue lights. The city skyline is visible in the background under a dark, cloudy sky.

VodafoneThree

