

# Olympics to strain UK Internet infrastructure

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A crane hoists a spool of cabling at London's Olympic Park on Monday, March 19, 2012. Those responsible for the British capital's network of fiber optic cables, phone masts and wifi hotspots say they're bracing for a data deluge as the games get underway. (AP Photo/Raphael Satter)

(AP) -- As Usain Bolt races down the Olympic track, will London's Internet infrastructure be able to keep up? Let's hope so. Experts say the network should be able to cope - but they warned of sluggishness during peak times and said an unexpected surge could easily push the system over the edge.

British Olympic Association chief executive Andy Hunt has predicted that the [2012 Olympics](#) will be the "Twitter Games," and those responsible for London's network of [fiber optic cables](#), phone masts and

Wi-Fi hotspots are bracing for a data deluge as the events get under way.

"There is the potential for a massive hit on the infrastructure," James Blessing of Britain's Internet Service Providers Association said.

Mobile company Vodafone said it also expected a data tsunami, saying "this summer it's going to be the equivalent of England playing in the World Cup final on Christmas Day, every day for the 17 days of the games."

Network engineers face a one-two punch: One is the influx of smartphone-wielding spectators, many eagerly updating their Facebook status from the Olympic Stadium or keeping up with the medal tally on Twitter. The second is unprecedented flow of video being streamed live to the Internet by Britain's national broadcaster, the BBC.

The combination has the potential to snarl Internet traffic. Olympic planners have already told London businesses to prepare for sluggish service during the games or even interruptions "in very severe cases." Data rationing remains an option, even if those involved played down the possibility.

Nationally, one of the biggest contributors to the Internet surge is expected to be the BBC, which plans to provide live coverage from up to 24 locations besides its three main channels of edited content. The broadcaster predicts that the footage, streamed to computers across Britain, will help generate a terabit (1 trillion bits) per second of traffic at peak times - the equivalent of 1,500 people downloading a feature-length DVD-quality movie every minute.

"It's between five and 10 times their normal output," Blessing said.

He said the unprecedented level of coverage was great news for workers

caught behind a desk during the 100-meter dash. But it could be a major headache for an IT staff trying to manage the ADSL2+ connections used by many small businesses in London.

"The problem," Blessing warned, was the potential for "20 people to have 20 live streams on their computers. Twenty live streams at a 1 meg(abits per second) each - that's your entire broadband capacity wiped out."

At the Olympic Park and other venues, the issue is one of concentration. Tens of thousands of athletes, organizers, media and police will be clamoring to make calls, share scores, file photographs and send footage in real time. The BT Group PLC estimates it will see the some 60 gigabits fired across the Olympic network every second, much of that bouncing back and forth between 94 different venues.

To that end, the company has deployed hundreds of staffers and laid thousands of kilometers (miles) of fiber optic cable - in many cases "doubling up" so if one cable breaks, the other picks up the load. A purpose-built top-of-the-line Wi-Fi network - supported by 1,800 access points - will keep Olympic staff connected on the go.

Howard Dickel, who is in charge of BT's Olympic delivery program, said as many as 25 phone masts are being installed across the 500-acre park, part of what he described as mobile telephone companies' attempt to give the area "the maximum capacity that they can provide given the laws of physics."

Keeping Olympic Park spectators communicating might be tougher task. Organizers expect that at peak times around 250,000 visitors, many toting data-hungry smartphones, will be in and around the venue, which is two-thirds the size of Manhattan's Central Park. They won't have access to the Olympic Wi-Fi network, so squeezing out a celebratory

tweet or an Instagram photo might prove a challenge, particularly at the 80,000-seat Olympic Stadium.

Both Dickel and Blessing said outside the park much would depend on how well the British squad performed. If there were no surprises, the system would most likely handle the ebb and flow of extra data with little problem. But if a British athlete went for gold in an obscure sport, or if a pole vaulter failed spectacularly, or if some other world event intervened - a terror attack, an earthquake, an Icelandic volcano - then there might be an overload.

Internet service providers have spent the past year and a half bracing themselves. Dickel said BT had brought forward its planned 2.5 billion pound (\$4 billion) investment upgrade program.

The chief operating officer of cell phone service provider O2 said his company had devoted 50 million pounds (\$79 million) for Olympic-related projects. The Vodafone Group PLC, one of the world's largest mobile phone providers, said it was boosting coverage in public spaces - such as London's central Hyde Park - that are expected to see big crowds.

So far officials said they haven't felt the need to impose limits on how much data Londoners can use.

"Hopefully, no one will notice a thing," Blessing said. "We win if no one notices anything."

**More information:** <http://www.london2012.com/>

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