

**Geo. ENTERPRISE  
BANDWIDTH STUDY  
MANAGEMENT  
REPORT OCT 2009**

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# 1 Introduction

**This document examines the findings of the Geo Enterprise Bandwidth Study.**

Geo surveyed IT and network professionals in some of the UK's largest financial services companies, manufacturers, retailers and local authorities on their top IT spending priorities for 2010.

The survey was undertaken in September 2009 and explored the following four areas of enterprise network provision:

- **core capacity**
- **network ownership models**
- **network capacity and**
- **planning for 2010**

## 2 Findings

The Geo Enterprise Bandwidth Study paints a picture of a world where bandwidth has become a business critical issue, and fibre optic communications an integral part of enabling everything from algorithmic share trading to processing online shopping orders.

An earlier study published in February 2009 by LECG for Nokia Siemens Networks called 'The Economic Impact of Broadband: An Empirical Study' explored the direct relationship between broadband penetration and economic performance.

"The results from our study show that broadband can have significant payoffs in terms of increasing productivity and economic growth."

LECG's analysis shows that bandwidth is the one thing companies must invest in. Geo's analysis examines how investments are being made at the frontline of UK business.

The UK economy may be increasingly dependent on the internet, but large enterprises are asking themselves if it's possible to share the finite resources of the public internet with half a billion broadband consumers worldwide, without impacting their own operations.

Geo believes that dedicated networks based on fibre are the most appropriate means to provide businesses with the bandwidth they need now and in the future.

The remainder of this report explores the findings of the Geo Enterprise Bandwidth Study in detail, examining core capacity, network ownership models, network capacity and planning for 2010.

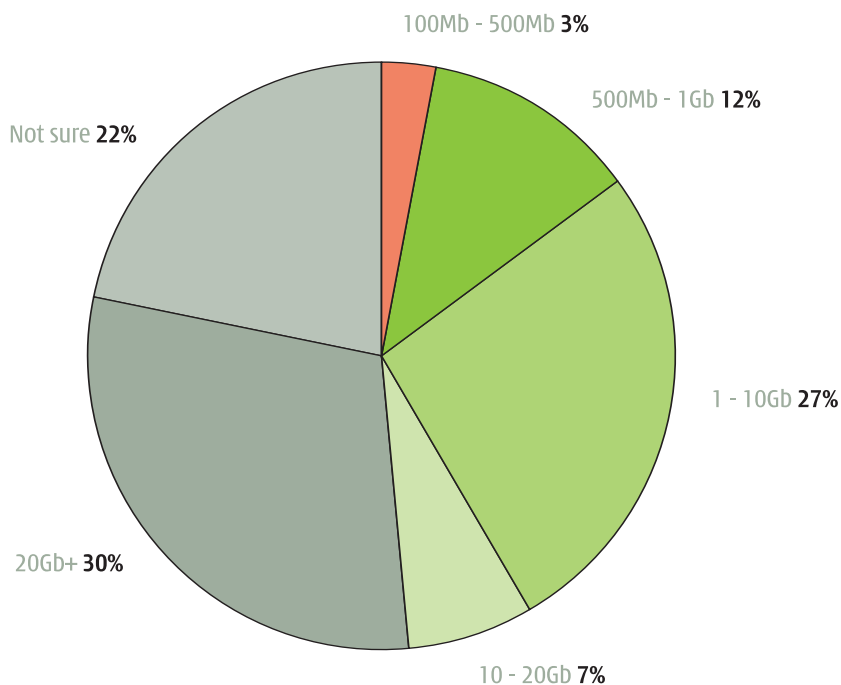
### 3 Core capacity

The study highlights the growing need for high bandwidth connectivity in the network core, the backbone of a business's data communications infrastructure. High capacity in the network core is critical to support business continuity, cloud computing and next generation applications.

Four in ten (39 percent) of the businesses questioned reported that the data capacity of their core network was between 500Mb to 10Gb. A similar number (37 percent) of businesses reported that they had deployed a bandwidth capacity of more than 10Gb with 30 percent of businesses reporting capacity of more than 20Gb.

But not all businesses are tooled with a high bandwidth infrastructure in the network core: 15 percent of businesses reported data capacity of less than 1Gb.

#### What is the largest capacity range within your core network?



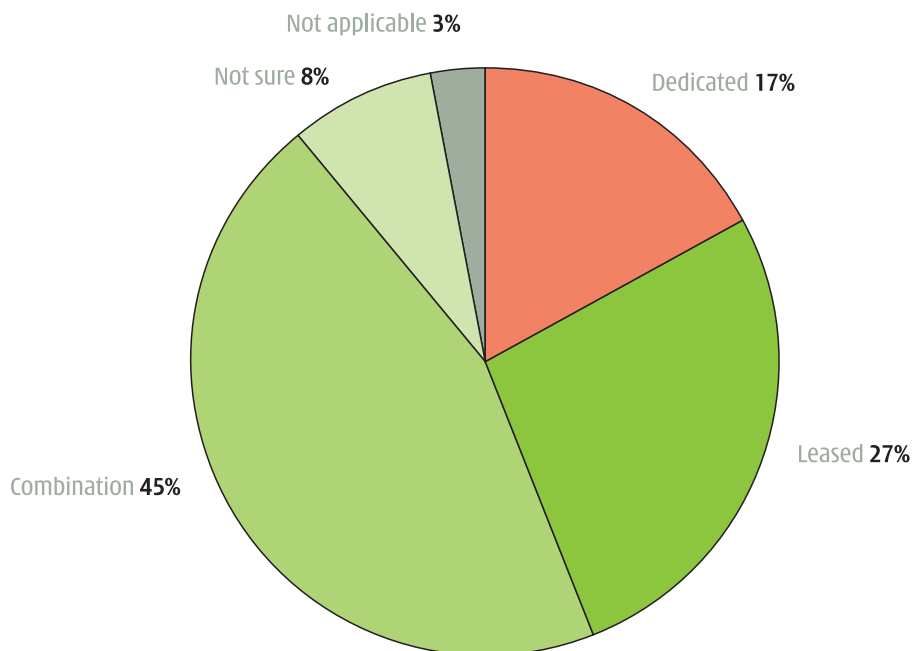
## 4 Ownership

Enterprise organisations in the UK recognise the benefit of dedicated fibre networks over managed services, according to the study.

62 percent of businesses said that they used dedicated fibre networks or a combination of dedicated fibre and managed services, whereas 27 percent of businesses reported using solely a managed service.

Dedicated fibre, whereby a business has its own physical fibre pair rather than sharing fibre with other customers, provides assurances over service provision, bandwidth and data security.

**Do you buy dedicated fibre networks or do you buy managed services from a telco supplier e.g. from BT, Virgin/NTL?**



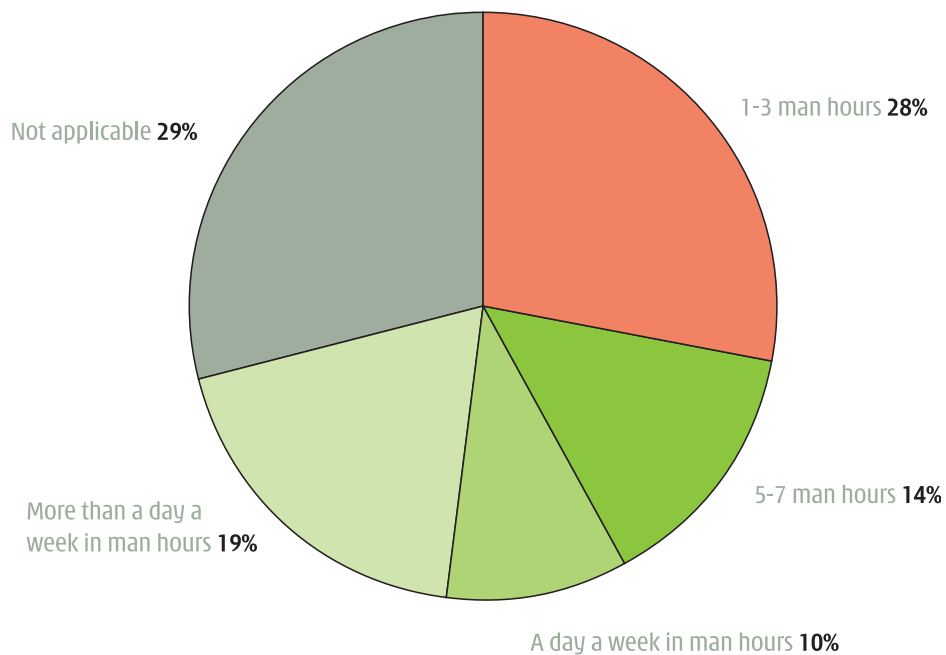
## 5 Network capacity

The study shows that businesses are finding it increasingly difficult to acquire sufficient bandwidth over the UK's progressively more congested public internet infrastructure. Network slowdowns or outages are a common feature for UK businesses and call into question the telco industry's claims of 99.999% up time.

More than a quarter of businesses (28 percent) reported that they typically lost between one and three hours operational time per week due to poor network performance. 43 percent of businesses reported downtime of more than five hours per week with 29 percent reporting network downtime of a day a week or more.

Dedicated fibre networks provide a resilient data communication infrastructure. Fibres are not shared, meaning that a business has the sole use of the available bandwidth and diverse routes ensure continuity of service in the event of a failure in any part of the network.

### How much time do you estimate your business wastes each week due to network slowdown/outages?

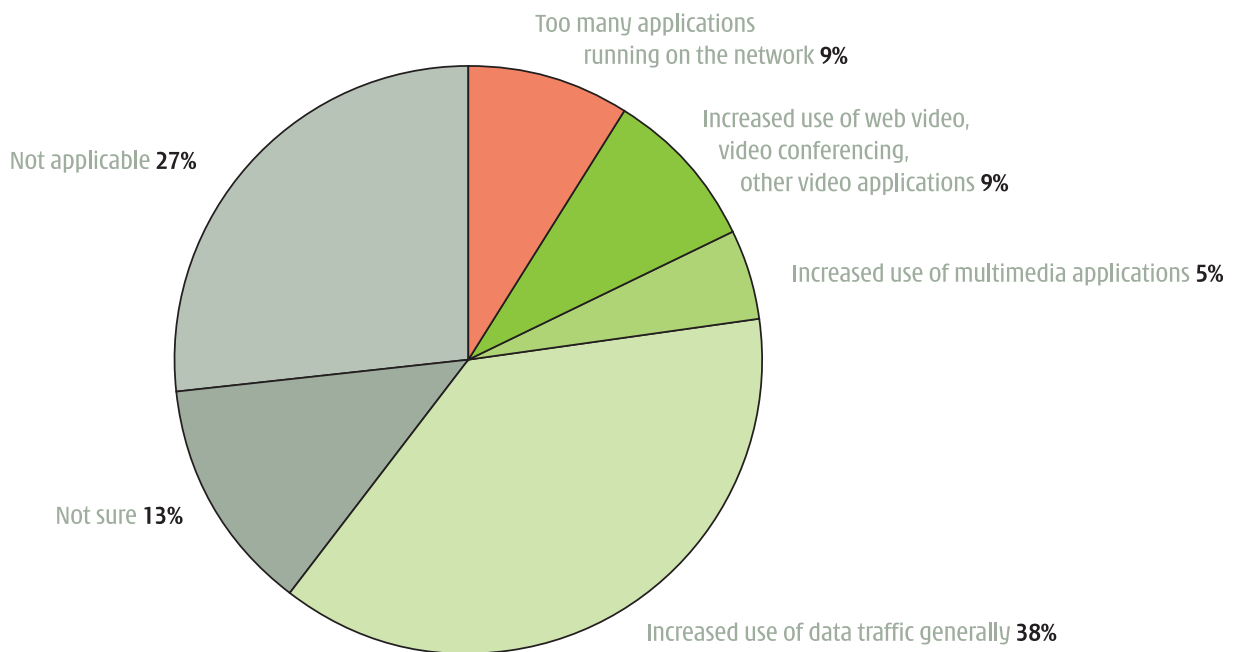


**5.1 Common causes of a network slowdown**

Businesses that experienced network slowdowns were asked to comment on the cause of their data crunch.

The increasing rise of data traffic was cited by more than a third of businesses (38 percent) as the most common reason for failure. The related issue of too many applications running on the network (9 percent) and the use of bandwidth heavy video applications (9 percent) were cited as common causes of a slowdown.

**If your network is slowing down routinely, what have you identified as the root cause?**

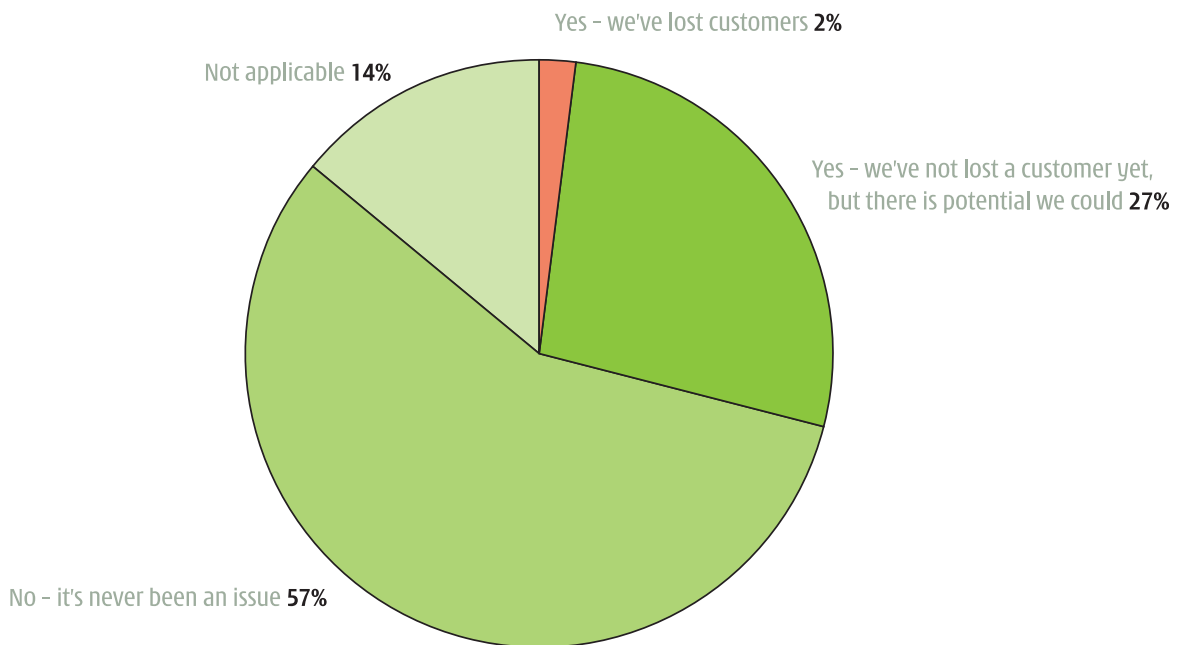


5.2 **Impact on customer service**

Data communication provision truly is business critical. Businesses reported that network outages or slowdowns were impacting customer service or had the potential to do so.

Nearly three out of ten businesses (27 percent) reported that network slowdowns or failure threatened customer relationships while 2 percent of businesses admitted to having actually lost business.

**Has your customer service suffered as a result of network slowdown?**

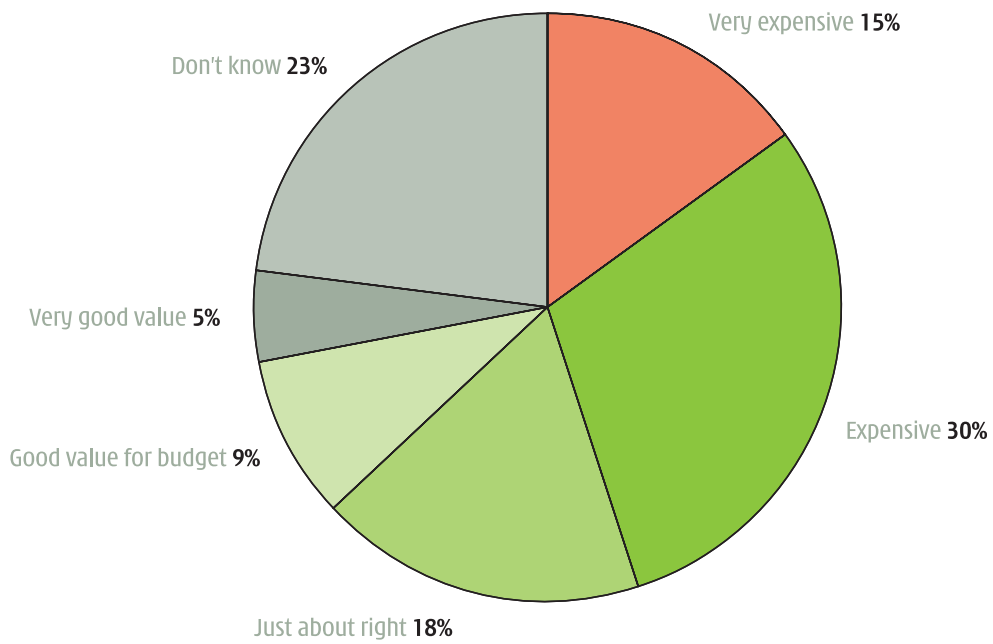


**5.3 Cost of adding network capacity**

Increasing core network capacity would enable businesses to overcome slowdowns and outages. But the study finds that the cost of incremental bandwidth from incumbent telco suppliers is an absolute barrier to network expansion.

The study shows that more than half of businesses felt that the cost of buying incremental bandwidth was expensive (30 percent) or very expensive (15 percent). By contrast only 14 percent of businesses said that the incremental cost of adding bandwidth represented good value or very good value.

**How do you find the cost of incremental bandwidth from your incumbent?**

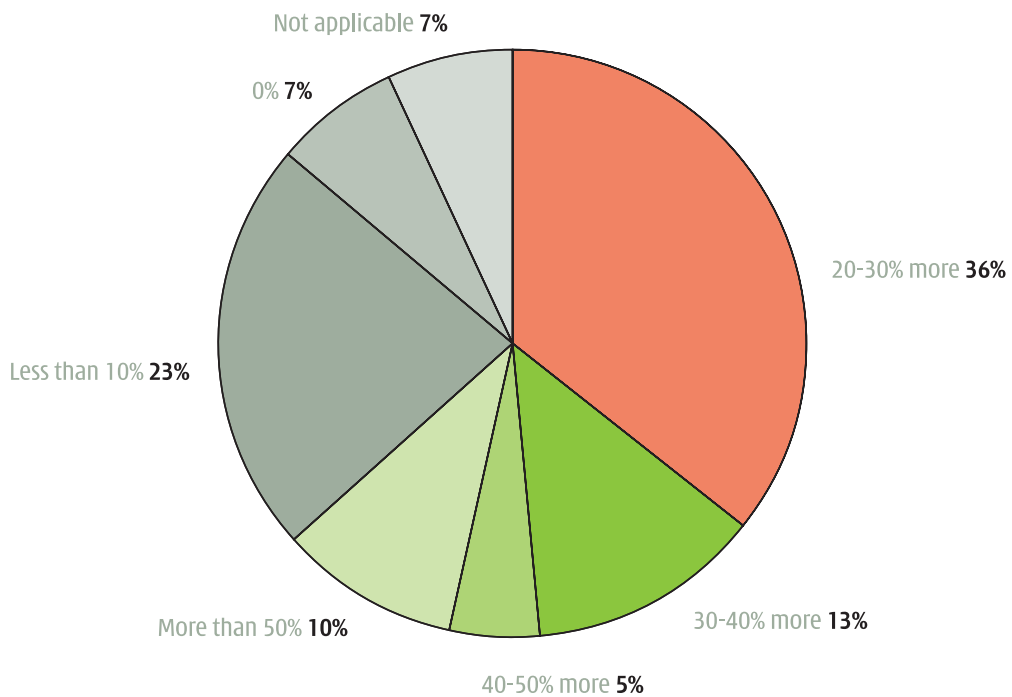


## 6 2010 planning

2010 will see explosive demand for network capacity among businesses. Almost 90 percent of IT decision makers questioned by Geo revealed that they were committed to increasing their bandwidth next year.

Demand among enterprises for increased network capacity is set to grow strongly in 2010, with more than half (54 percent) of IT decision makers preparing to grow bandwidth by between 20 and 50 percent. A further 10 percent expect their requirements to rise by more than half in the next twelve months.

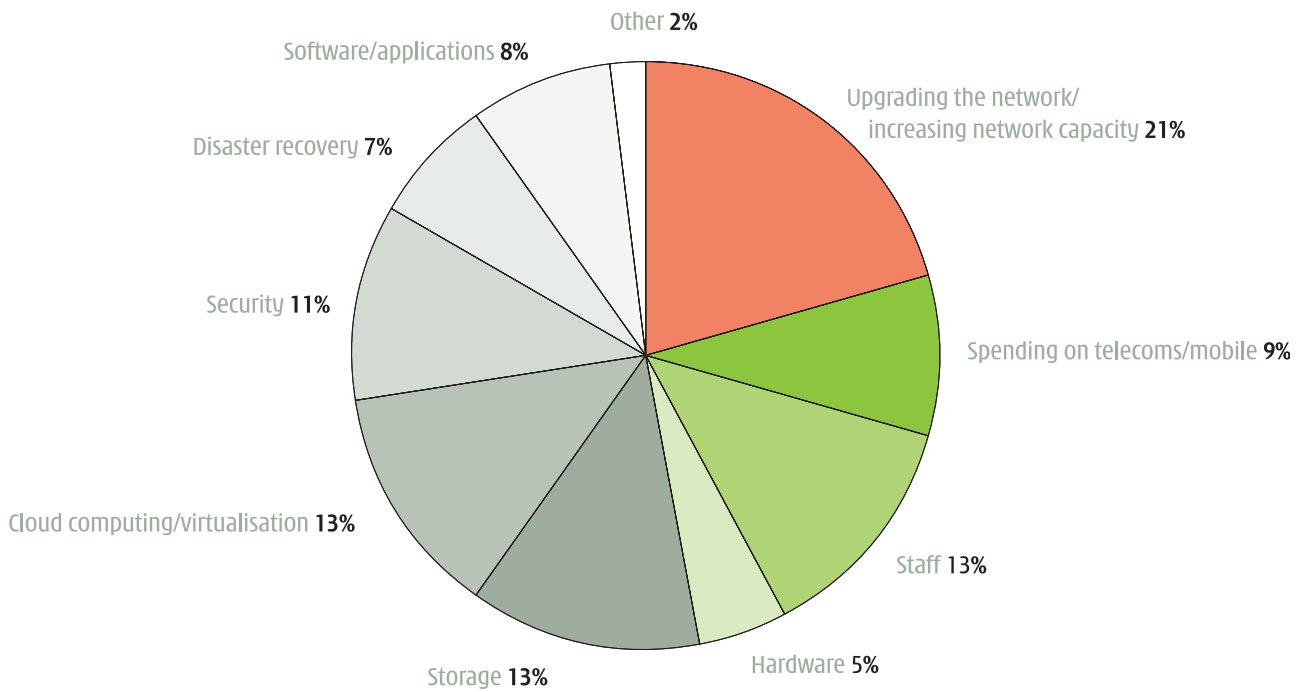
### By how much do you expect you will need to increase network capacity in 2010?



**6.1 IT investment priorities**

Network infrastructure investment topped the shopping lists of 21 percent of survey respondents. The research also shows that technology investment will drive this need for network upgrades in 2010, as 13 percent of businesses plan to make greater use of cloud computing or virtualisation, and a further 13 percent will increase their storage requirements.

**What's your biggest IT spending priority for 2010?**



## 7 About Geo

**Geo is the only company in the UK solely focused on the designing and building of bespoke dedicated fibre network solutions.**

Geo's revolutionary and flexible approach means that for the first time, organisations can own and control their networks, ensuring that security, high bandwidth and resilience are guaranteed. It provides an extensive range of solutions, including fully managed networks, dark fibre and co-location services.

Geo enables network solutions throughout the UK and in the London area. Customers include mobile operators, service providers, major banks, global brands and the public sector.

Visit [www.geo-uk.net](http://www.geo-uk.net) for more information.



**Geo is listed as the 7th fastest growing technology company in the UK in the Sunday Times Tech Track 100 list for 2009.**

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**The Dedicated Fibre Network Company**

