

The Distributed Business Index (DBI)

The benefits and limitations of distributed working in the 21st century

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Businesses rely on widely distributed networks of workers, be they at HQ, in branch offices, mobile in the field or working at some other external location. Whilst the office continues to be seen as the primary place of work, more and more staff are spending at least part of their working week somewhere else. Certain employees have always needed to be on the move; today they are better connected but the availability of connectivity means that other jobs that were previously confined to offices can now also be done from afar, which also means they can be more easily outsourced to third parties. This report looks at the degree to which the 21st century workforce is distributed and the issues organisations have with enabling this.

- **Branch offices: the majority of European businesses still operate with a traditional structure of a headquarters with a number of smaller branches**

The average number of locations for a business with over 1,000 employees is 33. In some sectors, like banking, this is decreasing; for others, like retail, it is increasing. In the future, carbon taxes may drive businesses to open smaller locations, relying on technology for collaboration between workers and reducing the distance that both employees and customers have to travel.

- **Mobility: workers that have traditionally been on the move are better connected, and the communications technology used to enable this has freed others, such as those working in call centres, to work remotely too**

70% of businesses say at least 25% of their staff are working remotely for at least part of the week.

- **Outsourcing: if an employee can do their job from afar then so can someone else; businesses are allowing greater access to third party workers than ever before**

Contractors, partners, suppliers and customers are all being given direct access to internal applications to automate transactions and allow day-to-day and non-core tasks to be outsourced.

- **Distributed business index (DBI): taking these factors together—the enablement of branch, mobile and external workers—an index for the degree of distribution can be defined (see Appendix B)**

Financial services organisations are the most distributed, partly due to their high degree of external interaction, public sector ones the least. Retailers lie between the two; the big chains still rely on a large number of branches, despite the growth in internet shopping.

- **User experience: all businesses worry about the experience of HQ workers, but highly distributed businesses put more effort into ensuring a good experience for remote workers**

Just worrying about the user experience is not enough. It must be measured, because the impact for organisations with a very high DBI, if access is unavailable for some reason, is palpable.

- **Technology: a high proportion of information technology (IT) workers does not, in itself, create a distributed business; the technology first needs to be embedded in business processes**

Even businesses with low DBI have a high proportion of workers that use IT. But those with a high DBI see IT as fundamental to their business processes rather than being a “nice to have”.

- **Drivers for distribution: the three main drivers for enabling distributed working are business efficiency, customer satisfaction and employee satisfaction**

As a whole, businesses are successful in providing the capabilities to support these drivers. For those with a low DBI, expectations are also low. However, those with the highest DBI, and are pushing distributed working to the limits, are not always able to meet their expectations.

CONCLUSION: There are many good reasons for enabling distributed working, but it will only succeed in the long term if there is a good enough underlying communications infrastructure. Businesses are unlikely to become less distributed in the future and those that embrace this reality will be the ones that thrive and endure. However, to succeed as a highly distributed business, and reap the benefits, requires that many business processes, such as supply chain management and customer support, are adapted to ensure they continue to operate optimally. Applications and a sufficient infrastructure should also be in place to support this.

Research Note:

The information presented in this report is based on a survey of 315 Senior Managers from businesses in Germany, UK and France. It was completed during November and December 2007.

Those surveyed included businesses with 1,000 or more employees from a range of industries.

Quocirca would like to thank all the respondents to the survey and the sponsor of this research, Riverbed Technology.

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Scope of this report and target audience

There is much variation in the degree to which the workforces of European businesses are distributed. Also the way their operations, employees and communications technologies are structured is undergoing constant change.

Traditionally, their infrastructure has been based around a network of buildings that house employees, but technology today allows a wider physical network of locations, including employees' homes, customer premises and other 3rd party locations, to become electronically integrated.

Distribution is not just a function of the business a particular organisation is in; it is as much a function of how an individual business embraces the opportunity to be run more efficiently

The degree of distribution varies by industry, but it is not just a function of the business a particular organisation is in; it is as much a function of how an individual business embraces the opportunity to be run more efficiently, serve customers better and attract good staff through being able to support a highly distributed ecosystem of employees and external workers.

This report looks at the degree to which businesses are distributed in the early 21st century, the reasons some are pushing this to its limits whilst others are holding back and, in both cases, where the benefits and pitfalls lie.

This report should be of interest to managers in any organisation that has multiple locations and/or where at least some of its employees leave its premises on a regular basis to carry out their day-to-day tasks. As the research shows, this means pretty much any business.

The research behind this report was based on interviews with 315 business and technology managers across Europe's largest economies, Germany, the UK and France. The research targeted organisations with one thousand or more employees.

Europe's distributed workers

One of the greatest influences on change in the way businesses have been run in the last two decades has been the ability to support remote workers. The effect has been either to better enable employees who were already remote such as drivers, field service engineers and sales people, or to allow other employees to work more flexibly than they could before.

The ability to integrate remote individuals has also extended beyond employees to external workers, enabling better automation of communication with customers and suppliers but also allowing more tasks to be outsourced to specialist partners. However, the backbone to the majority of businesses is still a headquarters (HQ) with a branch network.

Fewer branches or more?

4.2% of the organisations contacted by Quocirca for this survey have just one location and were not interviewed.

All 315 that were interviewed had two or more locations; the average number of locations across this sample was 33 (Figure 1). Over 60% of the businesses interviewed had a HQ with a number of smaller branches (Figure 2). There was also significant variation between the different countries, with French and German businesses having an average of 36 locations, whilst for the UK it was just 27.4 (the full national figures are shown in Appendix A).

Figure 1

Average number of physical locations

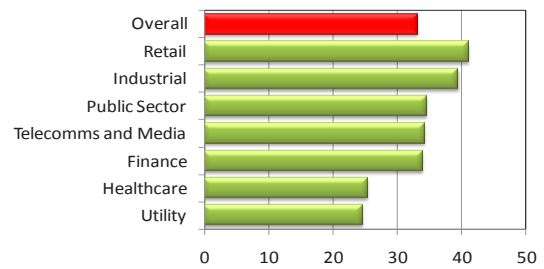
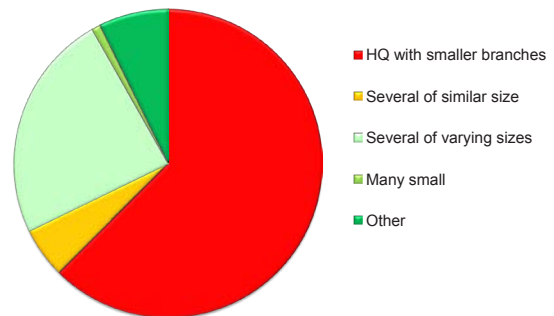


Figure 2

Configuration of locations



The average number of employees per location was 700, but given the differing sizes of HQs and branches this figure has little meaning except that it might be expected to decrease as remote working and outsourcing increases.

The number of employees in branches may also decrease because it has become more practical to manage workforces from afar. Many management functions, be they finance, technology or general, can be aggregated up to centralised staff, maintaining just a core of customer-facing staff in the branch itself.

There are different pressures in different industries that are likely to drive the number of branches up or down. Shoppers have to rely on a smaller number of increasingly larger retail organisations, so the number of stores per retailer is increasing. As banks interact with more and more customers online or by phone they have less need for branches in every town.

Change is likely to continue. Some predict that new pressures being imposed on employers in the form of carbon taxes, planning restrictions, parking charges and so on will change employment practices.

In the future it may make sense for businesses to have more numerous small locations near to centres of population to reduce commuting and be closer to customers. Businesses that do this will rely increasingly on electronic collaboration technology to keep employees in communication with each other.

Get me out of here

It is still common for a field service engineer to visit a local branch at the start of the day, clock-in, pick up a work schedule and then set out for the first customer site and then the next and so on, before returning at the end of the day to clock-out. Lots of time is wasted if engineers' schedules cannot be changed easily as new jobs occur or existing ones drag on longer than

expected. What is the point of an engineer driving to work to start his day if the first customer is just around the corner from his home?

Mobile technology allows the same engineer to save time by clocking-in from home and automatically pick up his work schedule for the new day. With locations of engineers being visible via GPS, urgent new jobs can be assigned efficiently and work schedules adjusted to maximise customer service levels. Overtime is recorded automatically based on audited records of an engineer's movements. Such use of mobile technology does not just ensure more efficient use of time and reduce time-keeping scams, it saves on fuel costs and means the working day eats less into employees' private time, who then feel more motivated.

Sales people can update forecasts and pre-place orders straight after, or even during, meetings, giving their managers more immediate insight into the state of the business and providing customers with speedier deliveries. Doctors can access patient records whilst on home visits, making sure a forgotten condition is not overlooked before issuing new drugs. Utility inspectors can log the precise position of faults so that when repair teams arrive it does not waste time relocating them.

Mobile technology does not just better enable workers who have always done all or part of their job outside of the physical premises of their employers, it also allows jobs to be done remotely where it was impractical before.

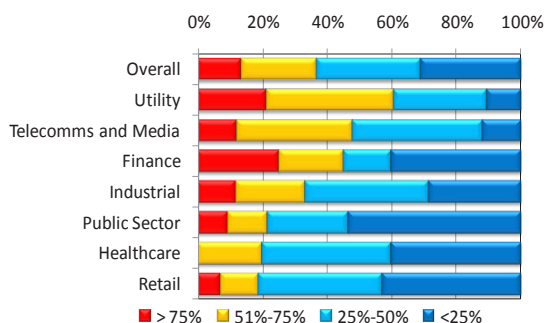
Call centres can be virtualised, reducing the need for expensive purpose built facilities, even allowing agents to be taken on who find it hard to be away from home. Calls can be redirected to any worker anywhere whilst all details are still recorded centrally for another agent or manager to see as soon as a call is completed.

Although they often are, remote management tasks do not need to be done from HQ. With good connectivity they can be done from anywhere, including home, making working or providing support outside the hours of nine to five more practical. For example, IT staff can carry out fixes whatever time they occur and from wherever they happen to be, even applying patches on a remote worker's PC on the other side of the planet if the network connection is good enough.

Similarly, the person organising field service engineers' schedules can be anywhere, providing they can access the same central application and data as those they are scheduling work for.

Remote working is now commonplace: around 70% of businesses say at least 25% or more of their staff are working remotely at some point during the working week (Figure 3).

Figure 3
Percentage of employees working remotely at some point during a week

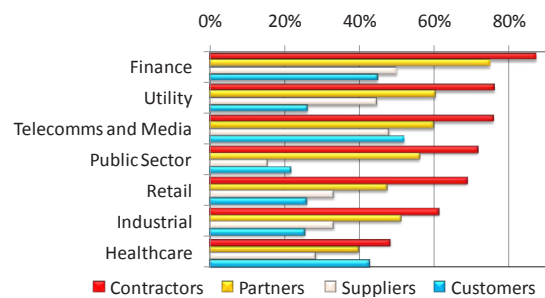


But as remote working is becoming more practical in some areas, businesses are asking the questions; do we actually need employees to carry out certain tasks? Could we not just out-source this to a 3rd party specialist also working remotely?

Get the work out of here

The most common type of external workers engaged by businesses are contractors (Figure 4). These will mostly be used to avoid the burden of taking on full time employees, allowing the workforce to be more scalable and they will often be based on a business's premises (although there is increasingly little need for them to be).

Figure 4
Percentage saying external users are provided access to internal systems



Businesses also make wide-ranging use of partners—a broad term which includes organisations to which work is out-sourced. For example, giving third party accountants direct access to financial information means more regular auditing and reduces the risk of cash-flow and other problems building up unnoticed; for organisations that do not do this it might be 12 months or so before the accountants notice a problem.

External companies can be used to manage technology, most of their work being carried out remotely, and engineers only going on site when hardware fixes are required. Such specialist third party IT management organisations have a wide range of specially skilled individuals to address a multitude of problems compared to the jack-of-all-trades often found in a small, over-worked internal IT team. Outsourcing mundane tasks frees up those internal staff to focus more on innovation, which will ultimately add value to the business.

Suppliers can monitor inventory levels from afar and initiate new deliveries as required. This means the shelves in stores are never empty, spare parts are always available in garages and that just-in-time manufacturing techniques can be used, saving the need to store expensive parts prior to shipment that may never be wanted anyway.

Customers are getting in on the act too. Whether it is one business ordering parts from another, consumers shopping online or citizens filing tax returns, electronic self-service is becoming more and more widespread.

Reliable connectivity enables all this and reduces the need for expensive person-to-person communication for mundane tasks such as checking product availability or arranging cash transfers. This reserves time for more complicated and interesting transactions, again motivating employees and improving customer service. Automated paperless transactions also save the cost of printing and postage.

If the customer's experience is a good one, they should come back time and again, but if it is not, enabling remote interactions may undermine all it is supposed to achieve. The differ-

ence between “efficiency” (doing more of the same thing, even if it’s wrong) and “effectiveness” (doing things better) has to be kept in mind at all times.

Similarly, both the business and employee will get frustrated if the technology put in place to support remote working does not deliver. Employees will become de-motivated and sales and profits will suffer. There are a lot of benefits to running a highly distributed business but it must be done well and the technology that supports it must be always available.

Trying to get a feel for how business is supporting these three widely disparate groups of remote workers—branch, mobile and external—is tricky. To this end Quocirca has designed an index to gauge the degree to which the operations of a business are distributed.

The distributed business index (DBI)

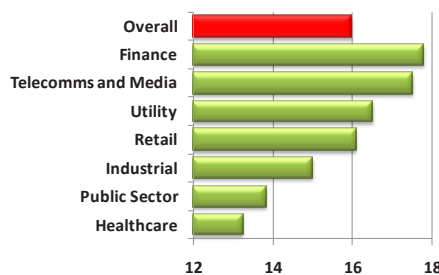
Quocirca’s DBI ranges from 1 to 30; the higher it is, the more likely an organisation will have a lot of branches, mobile and external workers because the index depends on these 3 factors:

- Number of locations
- Percentage of mobile workers
- Diversity of external workers

More detail of how the index is calculated can be seen in Appendix B.

Across the sample of organisations interviewed for this report the average DBI was 16; Germany had the highest (16.5), followed by the UK (16.2) and France with the lowest (15.1); values varied more widely by industry (Figure 5).

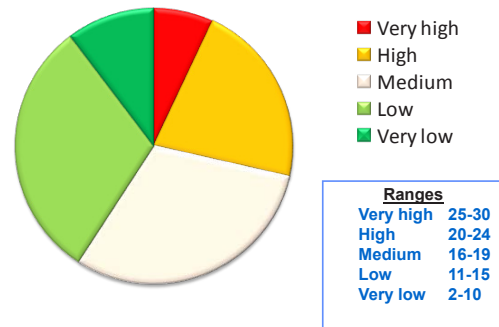
Figure 5
Average DBI by industry



Public sector organisations are some of the least distributed, often being highly centralised and perhaps suspicious of remote working practices (although the UK government has been proactive in encouraging remote working and citizen self service in recent years). Financial organisations are some of the most distributed with lots of mobile and external workers. Retailers fall somewhere in the middle; whilst they have the most branches, they still expect that customers will, in the main, turn up at their branches and transact in person.

However, caution is necessary with such generalisations and can be seen when looking at the extremes. Six organisations had a maximum DBI of 30 and included two banks but also a UK public sector body. Only one, a German regional government body, scored a minimum of 2. The lowest score for a bank was 11, also from Germany.

Figure 6
Breakdown of respondents by DBI



For ease of reporting, all organisations covered in the survey have been placed into one of five bands which are defined in Figure 6 and are used for comparative analysis of the pros and cons of distributed business practices through the remainder of this report.

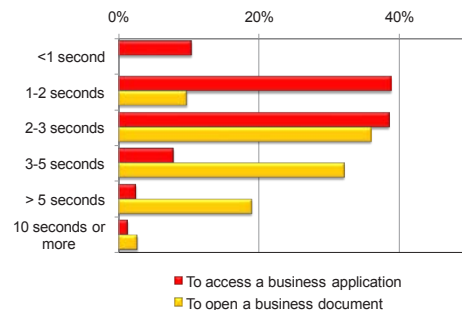
Worker expectation and experience

The degree to which distributed businesses can be enabled today is down to the revolution in communications technology over the last 15 years. This includes the ease with which data can be shared between remote workers and the widespread use of mobile devices to support employees; mobile phones, laptop PCs and, more recently, smartphones and other hand held devices.

However, many remote workers accessing lots of information puts a strain on the networks that transport data, which can mean slower response times and lead to a drop off in service level, frustrating employees and annoying customers. This is especially true if expectations have been set high.

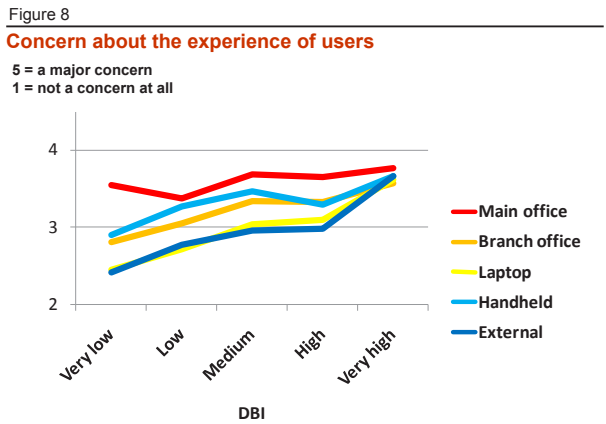
The most pervasive network used to enable remote working is the internet, across which performance can be very varied. However, those with responsibility for delivering remote access over the internet expect high levels of performance although their expectations are pragmatic. Whilst 10 seconds was considered too long for almost any remote worker to wait for a response, there was a clear understanding that moving documents around takes longer than would be expected to access a business application and initiate a transaction (Figure 7).

Figure 7
Response times considered acceptable for carrying out a remote transaction



External users are likely to be less understanding; the medium of delivery is not their concern, the service level they receive is. Businesses that come to rely on the internet for both internal and external transactions have to make sure that acceptable end user performance is being delivered across it yet understand that the internet alone can in no way guarantee a good user experience.

Of course, whilst being pragmatic, all businesses want the workers, whoever and wherever they are, to have a good experience. Figure 8 shows this: the expectations of workers in HQ is high across all organisations, which would be natural given the HQ employees are wired into an expensive internal network.



However, those organisations with a low DBI show less concern about remote workers of all sorts than their more distributed counterparts. This demonstrates the importance highly distributed organisations are placing on remote workers being able to access the applications that drive the business.

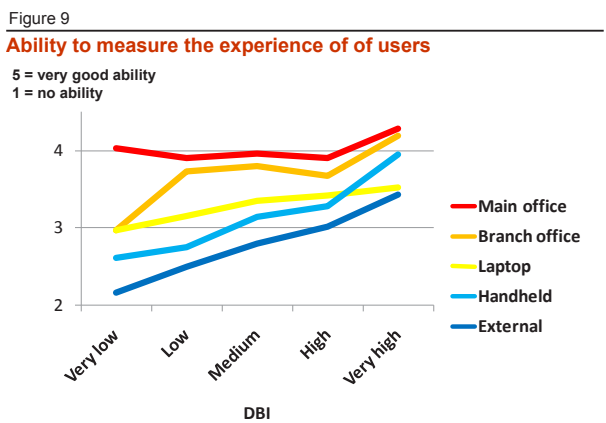


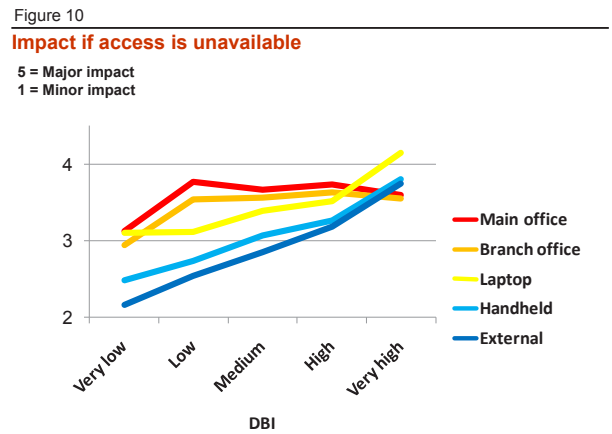
Figure 9 tells a similar story. Most businesses think they have a reasonable grip on the experience of workers in their HQ. In comparison, measuring the experience of remote workers is clearly problematic, but highly distributed organisations have put in place the best tools for doing this.

But even for them there is still a gap between the “ability to measure” in Figure 9 and the “concern” in Figure 8 for external users and certain remote users. Whatever measurement tools are currently in place, many highly distributed businesses could clearly do with better ones.

To reap the benefits of being a highly distributed business requires remote workers to be connected all of the time

Measuring experience is one thing, but the worry about access becoming unavailable is another. Figure 10 clearly shows that, for the most distributed of organisations, the impact when access is unavailable is greatest for remote workers.

The reason that the most highly distributed of business are so focussed on measuring the experience of all users and so concerned about lack of access for remote workers is that remote working has become integral to their core business processes. If the network fails, customer orders can no longer



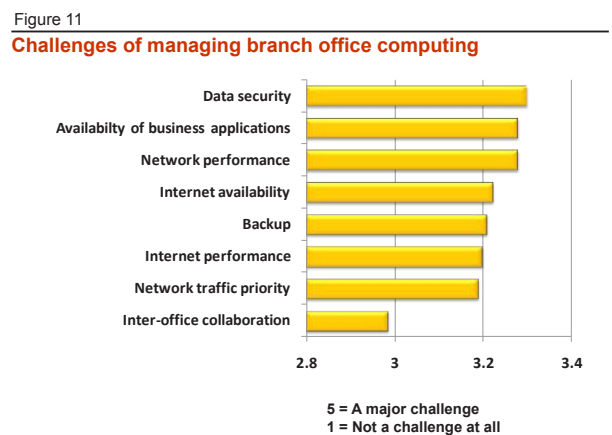
be taken, field service engineers sit idle, not knowing where to go next, accounts cannot be updated and shelves start to empty in stores.

In short, the competitive advantage they expect to have through building a distributed business will be lost if access problems persist. The network has become so integral to the business that its failure is unacceptable. A highly distributed business is committed; it cannot easily revert to old practices when the ability to communicate electronically between locations and remote workers has become essential rather than a nice to have. To reap the benefits of being a highly distributed business requires remote workers to be connected all of the time.

But once that nirvana is achieved, the company that builds a truly distributed business based on stable, high performance, reliable connectivity for remote workers, customers, partners and other external entities can really start to reap the benefits previously discussed. Lean supply chains, better customer service, fast deliveries, more motivated employees, more sales, more profits—for many industries in the 21st century, that means survival.

Applications drive remote working

Enabling any worker means giving them access to the applications they need to do their job. For most today these are software applications running in centralised data centres. Apart from the overriding priority given to data security, ensuring access to these applications is high on the list of priorities for any business (Figure 11).

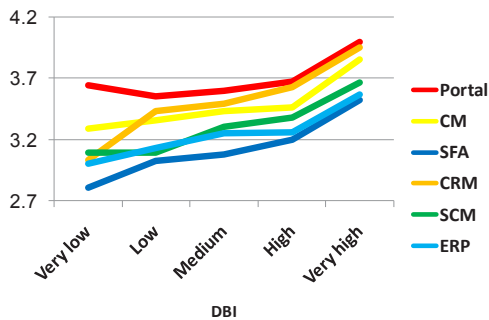


It comes as no surprise then, that the most highly distributed of organisations are impacted the most if certain business applications become unavailable to remote workers. However, concern increases more for some applications than it does for others as businesses become more distributed (Figure 12).

Figure 12

Impact if applications become unavailable to remote users

5 = Major impact
1 = Minor impact



For example, if a CRM (customer relationship management) system fails, organisations with a low DCI can switch temporarily to manual processes until it comes back up; communications are more likely to be over the telephone rather than automated, notes scrawled on bits of paper can be passed over partitions from one agent to the next—the customer may not even realise there is a problem with the application, which is a good job as they may already have spent many minutes trying to get through to the agent in the first place.

Transactions that require customers to talk directly to call centre staff are the most expensive and if those staff are housed in expensive centralised call centres, that cost per transaction is even higher.

Organisations with a high DCI are more likely to have reduced costs by running fully or partially virtualised call centres. Many aspects of customer service may have been automated, cutting down waiting times and ensuring one-to-one contact is reserved for the most complex customer issues.

However, if the application fails, service will cease until the problem is fixed; customer self-service will no longer be possible, many agents will be unable to receive calls and, when it is possible to get through to agents, they will be overwhelmed with unproductive calls from frustrated customers. De-motivated employees and angry customers are not a good mix.

This is not to say that virtual call centres or customer self-service are inherently bad things, but that the reliability of access to the applications they use must be guaranteed. The benefits gained—cost savings, responsiveness and so on—are all lost if the service level is not consistently high.

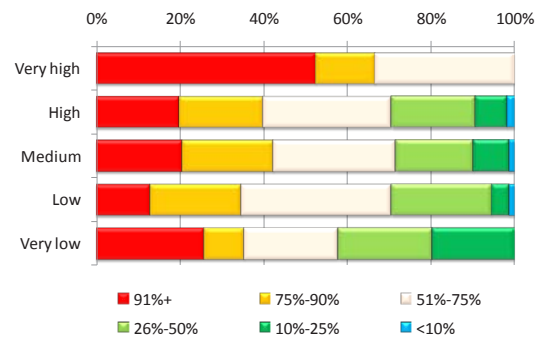
Making sure the user experience is good is a challenge but essential, especially for customers who can most readily go elsewhere if they are not happy. What are businesses doing about it?

Infrastructure for a distributed business

The principal enablers for distributed business are communications tools and information technology (IT). There is no business of any size today that does not deploy IT to some extent. Unfortunately, having a high percentage of IT users does not, in itself, cause a business to be highly distributed. Whilst the most distributed of businesses do tend to have a high proportion of IT users, there are also plenty of IT users in organisations with lower DBIs (Figure 13).

Figure 13

DBI versus percentage of IT users in an organisation



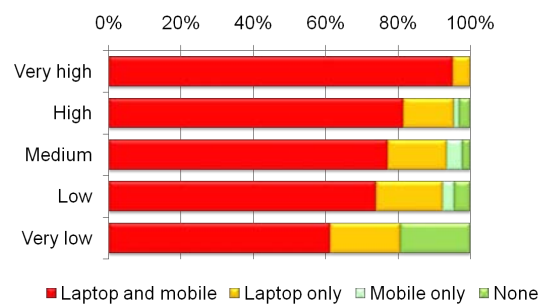
End user devices

Furthermore, most organisations are making extensive use of the electronic devices that enable remote working—laptops, smartphones etc. Organisations with a low DBI do lag behind their more distributed counterparts to some extent but, even so, around 80% of those with a very low DBI are issuing employees with such devices (Figure 14). For those with a very high DBI this increases to 100% but the figure only falls to around 95% for the bulk of organisations that fall between these two extremes.

What makes highly distributed organisations stand out is not the devices they make available to their workers, but the fact that their use is embedded into business processes.

Figure 14

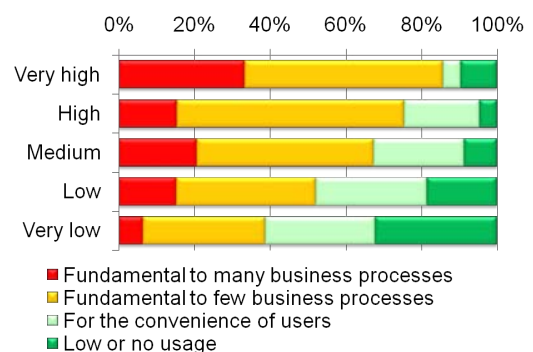
Type of mobile devices allowed by DBI



This is demonstrated well in Figure 15, which looks at the views taken of mobile computing. The higher the DBI of a given organisation the more likely it is to consider mobile computing as fundamental to at least some of its business processes.

Figure 15

View of mobile computing by DBI

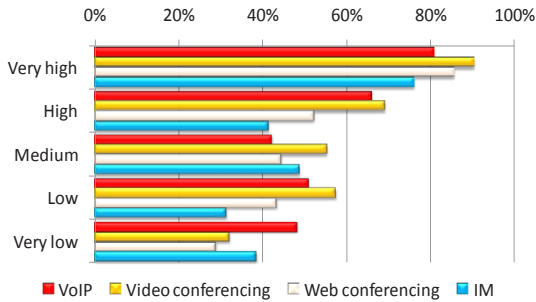


Collaborative applications

Those organisations that are fully embracing the opportunities of running a highly distributed business are also far more likely to have invested in remote collaboration technology such as instant messaging (IM), video and web conferencing as there is a belief that it is these applications that will better enable their workers to communicate (Figure 16).

Figure 16

Percent of organisations using communication technology by DBI



Such technology is essential for enabling remote workers and, just as with business applications, these collaborative tools need to be continually available for the distributed business to remain operational. Down time is not acceptable. Therefore the underlying network infrastructure that enables these applications must be good enough too.

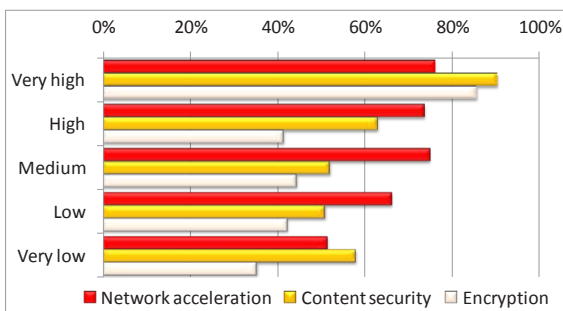
Fast, reliable, secure networks

Highly distributed businesses are also more likely to have invested in technology that effectively speeds up and secures the traffic travelling between their remote workers and their data centres (Figure 17). This includes:

- Network acceleration: data compression, data reduction and local caching of regularly used content.
- Data security: filtering of both email and web content to keep out viruses, spam, spyware etc., but also to keep employees focussed on their work by limiting web access regardless of where they are working.
- Encryption: ensuring that network traffic can only be read by the sending and receiving parties and not by anyone who manages to intercept it.

Figure 17

Percent of organisations using network management technology by DBI



What makes highly distributed organisations stand out is not the devices they make available to their workers, but the fact that their use is embedded in to business processes

Ease of deployment

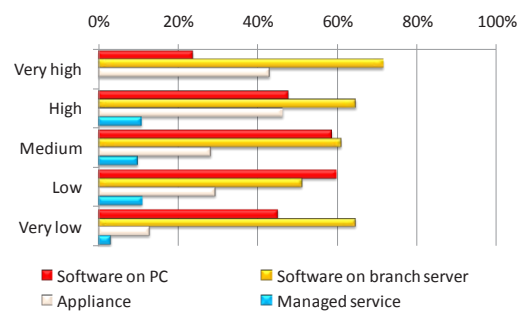
Technology for making networks faster, more reliable and more secure can be deployed in three ways:

- Software installed on servers and/or PCs.
- Appliances in data centres, branch offices and other remote locations with multiple users.
- Managed services, which act as proxies for web access and email delivery.

The most highly distributed businesses are more likely to have turned to specialised appliances than their less distributed counterparts (Figure 18). Software is more ubiquitous and managed services were cited by respondents the least. Software on servers and appliances are often direct alternatives; appliances often being favoured for ease of deployment, especially in branches with no skilled staff. Software on PCs is often the only choice for remote users working standalone or for making sure external workers get the level of access and performance they need.

Figure 18

Percent of organisations using network acceleration and form factor by DBI

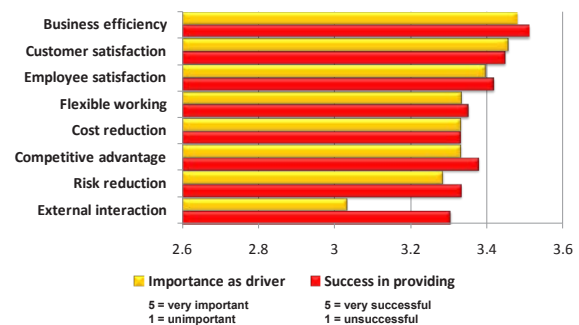


Drivers for running a distributed business

Figure 19 shows that the key drivers for enabling remote workers are all about business efficiency closely followed by customer and employee satisfaction. At the high level, it would seem all is well and that businesses are doing well in achieving these aims; success often being slightly ahead of importance, especially for gaining competitive advantage, which is lower down the list but still rated highly.

Figure 19

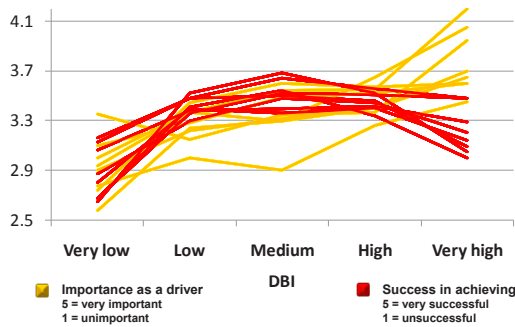
Drivers for enabling remote access and success in achieving



However, as always, the devil is in the detail. Figure 20 gives a visual comparison of these “importance” and “achievement” scores for different DBIs and shows that the uniformity does

Figure 20

How the importance of the drivers for enabling remote access and the success in achieving them (see figure 19) vary as organisations become more distributed



not persist across the spectrum. Those with a low DBI generally have low expectations for all the drivers shown in Figure 19, so they do not have to go far to meet them.

At the other end of the spectrum, for those at the bleeding edge, driving remote working to its limit is often failing to meet their expectations.

This should not come as a surprise; these trail blazers are pushing technology to its limits to get a competitive edge, but this does not mean it is not worth doing, just that being in the vanguard can be frustrating. Those just behind them, learning from the leaders' problems, are doing well, even if they are late to join the party.

Conclusion: an ever more distributed future

In business, it is often a case of 'nothing ventured, nothing gained'; despite some frustrations highly distributed business practices are here to stay and those that embed them fastest and put in place the platforms to support them are the ones that will thrive and endure.

All businesses need to become more distributed as working practices change and the benefit of making employees more mobile become ever more apparent. The way customers are supported and deals transacted is not going to reverse—they will become more automated and depend more and more on electronic communications between suppliers, customers and other parties involved in making business processes work.

To achieve this requires the enabling applications to be put in place and the underlying communications infrastructure to be fast enough, reliable enough and secure enough that it is, in effect, invisible.

For the business of the future, the network that links its distributed workers, customers and suppliers together is fundamental. It needs to be always there—reliable, fast and secure.

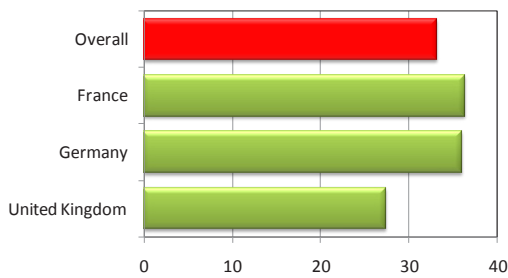
Appendix A: Selected national statistics

The figures in the main text show the data broken down by industry or DBI, however it is also interesting to see some of the national differences between the three countries included in this survey, France, Germany and UK.

Figure 21 shows that the average number of locations per country is considerably lower in the UK than in Germany and France. This is likely to be a reflection of such factors as the highly centralised nature of UK government and the number of banks that have closed branches in many small towns.

Figure 21

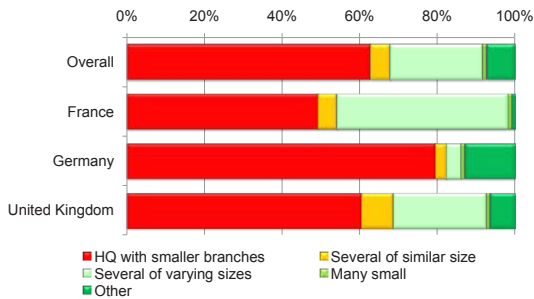
Average number of physical locations – by country



Germany has the most centralised businesses (Figure 22), perhaps reflecting its strong manufacturing base, which will often consist of a HQ with a number of locations carrying out parts of the manufacturing operation.

Figure 22

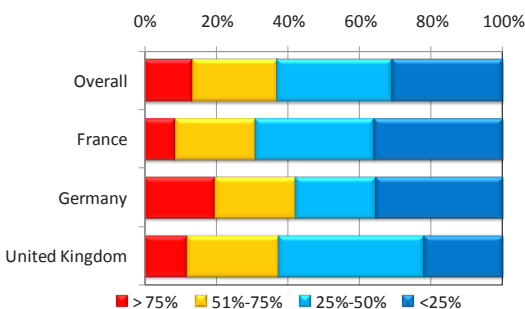
Configuration of locations – by country



There was little difference in the degree to which employees were enabled for mobile working between the three countries (Figure 23).

Figure 23

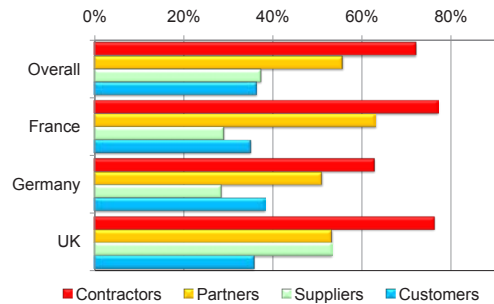
Percentage of employees working remotely at some point during a week – by country



UK businesses were the most likely to open up their systems to suppliers (Figure 24). This may reflect the strong service segment in the UK economy, which relies on interactions between multiple organisations in a service process, but the fact that this is happening across all three countries shows that supply chains in many sectors are being automated.

Figure 24

Percentage saying external users were provide access to internal systems – by country



The DBI was lowest for French companies, perhaps reflecting suspicions about remote and home working amongst French businesses.

Figure 25

Average DBI by country

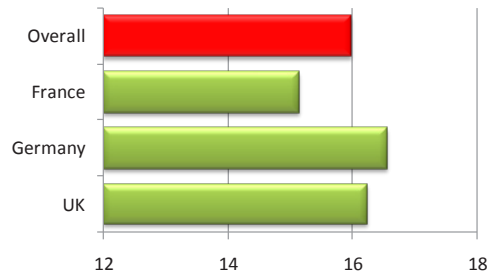
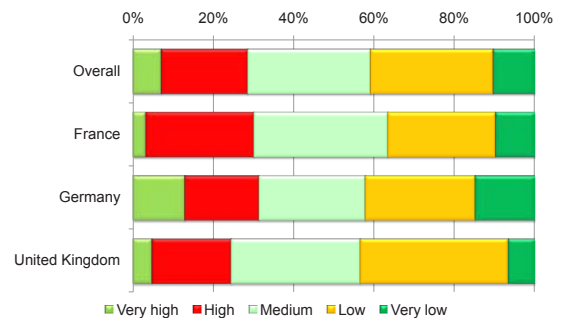


Figure 26

Breakdown of respondents by DBI – by country



Appendix B: Calculating the distributed business index (DBI)

Based on the following three factors, Quocirca has derived a distributed business index (DBI), with a range from 1 to 30. The higher the value the more distributed an organisation's workers are. The index is derived as follows:

Number of branches

- Assign: 1 for 2 branches
2 for 3–5 branches
3 for 5–10 branches
5 for 10–20 branches
7 for 20–50 branches
10 for more than 50 branches

Mobile users

- Assign: 0 for none
1 for < 10% of employees
3 for 10%–25% of employees
5 for 26%–50% of employees
7 for 51%–75% of employees
10 for > 75% of employees

External users

- Assign: 0 for none
3 for 1 out of contractors, partners, customers and suppliers
5 for 2 out of contractors, partners, customers and suppliers
7 for 3 out of contractors, partners, customers and suppliers
10 for all of contractors, partners, customers and suppliers
The maximum is 30

The minimum is 1 but, for this survey, organisations with a single location were not included so the minimum is 2.

Appendix C: Interview sample distribution

The information presented in this report was derived from 315 interviews with senior managers and decision makers during a survey completed in November and December 2007.

The sample distribution was split as follows (Figures 27 to 30):

Figure 27

Countries

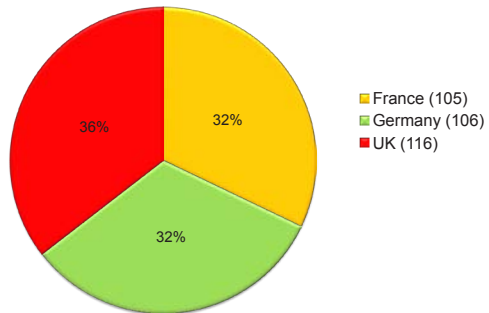


Figure 29

Sector

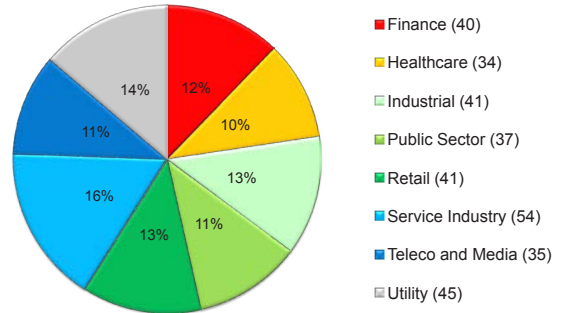


Figure 28

Organisation size

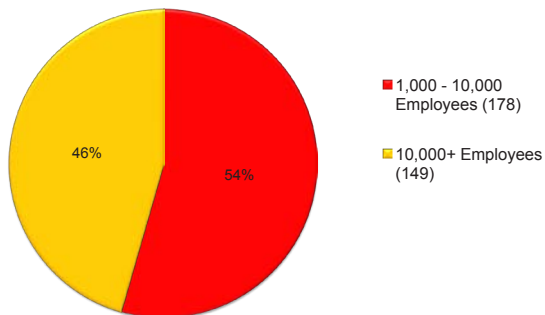
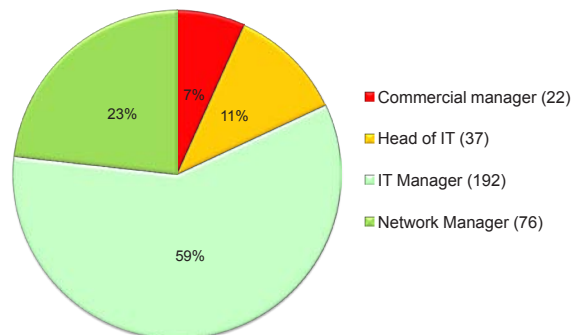


Figure 30

Position



About Riverbed

Riverbed Technology is the technology and market leader in wide-area data services (WDS) solutions for companies worldwide. By enabling application performance over the wide area network (WAN) that is orders of magnitude faster than what users experience today, Riverbed is changing the way people work, and enabling a distributed workforce that can collaborate as if they were local. Additional information about Riverbed (Nasdaq: RVBD) is available at www.riverbed.com.

Steelhead Products

Riverbed's WDS solutions enable organisations of all sizes to overcome a host of severe problems, including poor application performance and insufficient bandwidth at remote sites. By speeding the performance of applications between data centres, remote offices and mobile workers by 5 to 50 times and, in some cases, up to 100 times, Riverbed's award-winning Steelhead WDS products enable companies to consolidate IT, improve backup and replication processes to ensure data integrity and improve staff productivity and collaboration. Steelhead products have been deployed in organisations ranging from the world's largest corporations with offices around the globe to small companies with a couple of sites that are just miles apart. To learn more, view Riverbed's demo: www.riverbed.com/pr/jack.



About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With worldwide, native language reach, Quocirca provides in-depth insight into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with firsthand experience of ITC delivery who continuously research and track the industry in the following key areas:

- Business process evolution and enablement
- Enterprise solutions and integration
- Business intelligence and reporting
- Communications, collaboration and mobility
- Infrastructure and IT systems management
- Systems security and end-point management
- Utility computing and delivery of IT as a service
- IT delivery channels and practices
- IT investment activity, behaviour and planning
- Public sector technology adoption and issues
- Integrated print management

Researching perceptions, Quocirca uncovers the real hurdles to technology adoption—the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capacity to uncover and report on end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform business and business process, but often fails to do so. Quocirca's mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long-term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca's clients include Oracle, Microsoft, IBM, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Sponsorship of specific studies by such organisations allows much of Quocirca's research to be placed into the public domain at no cost. Quocirca's reach is great—through a network of media partners, Quocirca publishes its research to an audience possibly measured in millions.

Quocirca's independent culture and the real-world experience of Quocirca's analysts ensure that our research and analysis is always objective, accurate, actionable and challenging.

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