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Supplement



# Towards a Better Britain?

Broadband in the Regions  
and Nations of the UK

*A New Statesman* roundtable

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## Introduction

In the East Midlands there is still a huge divide between rural and urban areas in terms of broadband connectivity. However, the work done in this region in terms of aggregation is exemplary and the East Midlands' ADIT is trying to maximise these possibilities by building on its relationship with the different public sector elements.

However, delegates were keen to point out that saving in the public sector does not come from deployment of broadband itself. It actually comes from the services that are possible once people are using broadband. As one delegate said, "Broadband is nothing but the services are everything."

In business, leadership and management change is key to the adoption of technologies and yet it is these very people who often remain the furthest removed from them. A similar investment in training will be needed to match the investment in technology itself if these people are to become truly engaged by the possibilities.

What is abundantly apparent is that access to broadband will not only change our business models but that it will cut right across society into what we currently think of as our way of life.

# Participants



**Kevin Ashford (chair)**

Co-presenter, Central News in the East Midlands



**John Armley**

Chief executive, ADIT East Midlands



**Gareth Braithwaite**

Group IT director, Wilson Bowden



**Eleanor Byram**

Project manager, e-skills UK



**Bryan Carr**

Non-executive board member, East Midlands Development Agency



**Ian Griffiths**

Director of communications and IT, Nottingham Trent University



**Mike Kendall**

Head of learning and ICT, Northamptonshire County Council



**David Marsden**

Chief information officer, Strategic Health Authorities East Midlands



**Jon McLeod**

Board member, East Midlands Development Agency



**Mick McLoughlin**

East Midlands regional director, BT



**Spencer Neal**

Publisher, *NewStatesman*



**Mike O'Brien**

Minister of state, Department of Trade and Industry



**Dick Peters**

Senior partner, Deloitte & Touche



**Geoffrey Robinson**

Chairman, *NewStatesman*



**Alan Srbljanin**

ICT policy adviser, East Midlands Development Agency



**Martin Traynor**

Director, East Midlands Chambers of Commerce



**David Weymouth**

Chief information officer, Barclays

# Towards a better Britain?

## Broadband in the regions and nations of the UK



**Kevin Ashford** As presenter of *Central News in the East Midlands*, I come to this subject with no specialist knowledge, except that I've worked in television for about 13 years. The impact of technology has been phenomenal in television.

Potential broadband coverage at the moment in the East Midlands is just under 90 per cent, but there is a big gap between supply and demand that needs to be closed. Regional identity is important in the way we tackle this issue.

Without further ado, I'd like to introduce you to the Right Honourable Mike O'Brien, Minister of State.

**Mike O'Brien** We are only at the beginning of the revolution that's going to take place as a result of the changes in technology. The impact on society is likely to be akin to the impact of the industrial revolution. It will transform the way we work, the way we live our lives, the way we see our future.

Research by the Economist Intelligence Unit has shown that, in future, the productivity and competitiveness of a country is going to depend on its use of new technology, and broadband is one of the key technologies. A recent survey by the Institute of Directors confirms that and the regional development agency's (RDA's) role, in ensuring that the national strategy of developing greater access to broadband is carried through. The RDA here in the East Midlands has

had some notable successes in the last year: 2,768 jobs created, 2,009 foreign direct jobs created, 10,000 learning opportunities, 623 new businesses.

In the last two years, the speed of the revolution has been enormous: 15,000 people a week coming online on broadband. By the midpoint of next year, we expect 99 per cent of the people of this country to be able to access broadband. The problem will be the last 1 per cent.

I just published yesterday an independent international benchmarking comparison which shows that we are third, behind Ireland and Sweden. We're now leading on things like voice-over IP, on desktop conferencing, on a whole range of areas. We're also seeing a massive expansion of SMEs using the web, creation of websites and new-style marketing.

However, transactions online are still down and we need to create a greater degree of confidence among people to transact online. This year we've got the presidency of the G7 and the UK presidency of the EU where we are going push forward the Lisbon agenda to see Europe as the most advanced region of the world in technology. We need to liberalise some of the market technology in the EU so that there is greater access, openings and opportunity for companies to engage.

The Government has two key roles in developing this technology. It encourages the private sector to develop its



opportunities in the area of broadband and it needs to get public services available online for people who need them.

As I said, this will be a social revolution. There will be more people able to work at home, much more conveniently and just as effectively with real-time conferencing. So work/life balance can be affected, likewise life-long learning can become much more accessible.

The US economist Bob Reich suggested that one of the big class divides we are likely to see growing is between those who have access to and understanding of ICT, and those who do not. By 2008 we want every child to have the capacity to access broadband in their home.

To ensure that the 1 per cent I mentioned is able to access it is going to require quite a lot of effort by the industry.

In the East Midlands, there's the Broadband Fund; we put £2.1m over the last three years into the Broadband Fund; it has access to regional and European funding, and brought some of it together. You've seen Free the EMidlands campaigning, you've seen the Remote Areas Broadband Inclusion Trial (RABIT) operating. But we have seen the same sorts of problems arising here in the East Midlands as we have had elsewhere, such as breach of intellectual property rights and spam, a frivolous word for a serious problem.

We're looking at all these issues with Ofcom and with companies in the industry to see how we can deal with this new and innovative crime that is developing. If we don't tackle fraud effectively, then people will use the internet less.

That's why last week I met with the Japanese minister who was in charge of broadband development; to talk about how we can get agreements with ISPs to deal with the problems of security. BT is using administrative means to prevent child

pornography going onto the internet for the people they provide service to. We've asked the other ISPs in the UK to follow through with that.

An old-fashioned regulatory approach won't work; it does require co-operation. The consumer needs to take action. There's a big educational programme there. We need the Government and the consumer to act; we need the ISPs' co-operation. The role of the Government is necessarily limited because of the nature of the technology, but the role of the Government is central in terms of co-ordination of that regulation.

**Kevin Ashford** Mike, thanks very much for opening. Our first speaker is John Armley from ADIT East Midlands.

**John Armley** Broadband aggregation: can it be made to work? There is a simple answer to that. But I thought I'd start by briefly running through what the aggregation programme is all about. The aggregation bodies are set up by the RDAs and DTI initiative to try to effectively use the power of the public sector stand on broadband to influence the way broadband infrastructure is put out into the country.

We went out on a full Official Journal of the European Union tender process; and through that we signed up 17 broadband suppliers; basically they are the normal suspects in terms of infrastructural supplies, BT and the wirelesses, then there's a section of systems integrators that have been pulled together with different solutions.

The programme has set up some common objectives: one was to realise best value propositions by the intelligent bundling of requirements across the public sector. In this region there are several very remote areas, so 99 per cent of our figures actually do not quite reach the 1 per cent ubiquity. One of the gists of the programme is to use the requirements of serving the public sector in some of these remote locations to provide an infrastructure that other people can get access to. Of course the programme is based on making the procurement process as efficient as possible.

The Regional Aggregation Bodies (RAB) market has three main areas of customer segments, education being one. Schools and the higher education universities are run on separate networks, although there is already discussion between those two about aggregating some of their capabilities.

Again, there is more than one element of the NHS; the huge N3 programme is trying to address some of the upgrading of these networks. Within local government, there are a host of departments all needing to procure broadband and doing it fairly independently of one another. Within each of these customer segment areas there is possibility for aggregation. If you add in the cross-public sector areas, we see potential savings of 25 per cent or more on connectivity costs alone.

The RABs at the moment are concentrating on connectivity. Aggregation creates competition among suppliers, bringing back to the public sector the best solutions, best value propositions at lower costs in a lot of cases.

There will be need in a village due to the school, the dentist, and so on requiring broadband access. Some of these aspects are procuring independently and the aggregate model actually drives the ability of suppliers to look at these propositions in a different way.

Rather than individual circuits that they have ordered, they can put them in an aggregate bundle, and maybe build out further in terms of the infrastructure.

The aggregation model provides a common procurement vehicle; each tender process we go through is not cheap. The ADIT's regional focus in the East Midlands has demonstrated the relationship we are trying to build with the different public sector elements to maximise aggregation possibilities. Working very closely with East Midlands Broadband Consortium (EMBC), with NHS PCTs and so on, we are trying to pull together all the possibilities.

**Kevin Ashford** Is it going to happen fast enough?

**John Armley** The timetable is going ahead on a number of different fronts. The aggregation programme is one element. BT and the other service providers of broadband are working on other aspects of availability. The N3 programme is a huge IT project running on very tight time scales. The EMBC, for example, is already halfway through school connectivities. Local authorities are on yet another programme.

**Geoffrey Robinson** As I understand it, this is the first time you've got into aggregation at any of the roundtables in such detail. You're almost taking a leadership role in saying how aggregation can be made to work.

**John Armley** Well the programme in the East Midlands was selected as being an ideal region to look at that, because there was still a huge divide between urban and rural connectivity.

**Geoffrey Robinson** You have two roles, one is by aggregation, to find the common scales which we have to accelerate, bringing broadband into the isolated communities on the one hand, but on the other hand trying to bring together the power of the public purse, in buying services.

Is it correct that total savings could be £22bn and I think that something like £5.6bn of that will come from local government? If so, you can aggregate to bring different groups together to purchase with much greater power collectively than they can do individually, is that right?

**John Armley** If you've got an intelligent base, a central expertise that understands the industry, you've got to get some efficiencies.

**Ian Griffiths** I'm executive director of East Midlands Metropolitan Area Network (EMMAN) for HE and FE. The East Midlands was chosen as a kind of exemplar in that we had done some of this aggregation and showed it could work. We have with EMMAN now about 500,000-600,000 users using broadband. We need to remember in this region, nationally as well, that we are probably leading the world in education in terms of connectivity. Certainly in our education and FE, we are the envy of the US and the envy of Europe in a sense.

**Mike O'Brien** The speed of change taking place outside has been delayed in the public sector by bureaucracy. We must ensure that it is not. We need aggregation where it works, but must allow the public sector to choose how to deploy it.

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## We need aggregation where it works but must allow the public sector to choose how to deploy it

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One of my local hospitals managed to get a contract on offer to link the hospital up to broadband and completely network it but was then told that it had to fit in with the aggregation system and, as a result, delayed one year and then they happily charged them. That did not seem to me to be the best way of proceeding.

Some parts of the public sector are ready to move and we shouldn't be moving at the slowest part of the sector.

**John Armley** Well, I am quite surprised at that example. Not even two civic councils have the same requirements.

I have taken time out in this region to be very conscious of those different time scales and worked hard to fit them in the best way. I can make the ADITs successful here if I'm actually successful in lining up these requirements.

Within the whole of the public sector there is reluctance to change from existing programmes and to try this new procurement method. We can bring benefit through that alone.

**Spencer Neal** I was just interested in whether or not there is sufficient capacity on the supply side to cope with the aggregated demands and whether that has any significance for smaller, local IT businesses, smaller ISPs, smaller support.

**John Armley** I think a lot of that has to do with how the 

demand bundles are put together. Some suppliers will look at a prospect where they do not have connectivity, and they will then look at that cost space rather differently, because the natural fact is rather going to attract your proposition for them if they've got that business with that local authority, section of health or education.

There's other cases where we know suppliers actually bid for the whole lot where they're strong, but also leaning on BT wholesale to get to those parts they can't reach.

**Gareth Braithwaite** Natural saving in the public sector does not come from deployment of broadband itself. It actually comes from the savings you get by using broadband, by the services that are on it. There's two speeds here: a difference between what the Home Office and central government parts are doing and what the regions have been asked to do. People need options, though there is only one option.

**Mike O'Brien** There is a conflict between ensuring that we get standardisation, interconnectivity, and the ability for various parts of the public sector to genuinely engage with each other. It's not just "Connect with each other, give each other information." But that does mean that we are not sending one single signal to all the SMEs.

To some extent the Government is reluctant to dictate to all the regions and say, "This is how you must do it". Yet it's got advantages in theory in the long term, as you could be able to have the whole of the public sector all confined precisely to the same standards. So getting the balance right in this process is important. Over the last week or two we've been discussing with the RDAs their having more freedom to enable each region to progress in its own way.

**David Marsden** I want to bring to the table the issue of health care demand. We have not had difficulty working with the RAB and I think there's the acknowledgement we just need to draw track, but there's no doubt that our forward demand needs to be better compiled to present a more strategic approach to provision. And the example that Mike gave certainly has not been our experience.

For example, we have in the NHS an ambition to introduce an electronic choose and book system by December 2005. In north-east Derbyshire four weeks ago, we needed to put broadband into five GP practices with about three months' notice. That couldn't stand a full aggregation and procurement from north-east Derbyshire so we needed, through the N3 contract with BT, to make a tactical deployment. That doesn't mean that we don't then need to go back, to work out a longer term broadband for the north-east Derbyshire area and then do it strategically with the RAB.



**David Weymouth** From a private sector perspective, when you're aggregating, are you buying on a managed service basis, is there an agreement, a sort of rapid revision? How far ahead is one looking?

**Alan Srbljanin** The first element is fairly identified by the N3 service provider, that's Syntegra; a sort of catalogue if you like, of products that are being used. That has actually been set up on the framework. So where there needs to be a quick tactical deployment, that can be drawn down through this very quickly. And the other method is that we would actually use the supplier base we have in front of us for a mini-tendering, as we call it, that we will send out.

But in order to realise all the attributes of aggregation, a catalogue approach doesn't really support all of that. There are effectively set prices; nobody knows where you're going to draw down or not, so the prices are set accordingly. You don't realise all the value propositions of aggregate by using a catalogue, so, for tactical deployment: okay, but for a longer term, infrastructure building: aggregation, and of course the main competition areas, is the way to go.

**Mike Kendall** I was going to support the intuition about tactical deployments, because the education sector was connected before broadband came along. What we have got in place from EMBC is moving from a tactical (often decided by individual head teachers or principals) to a strategic procurement. What we're doing, working with the ADIT, is looking at how we move forward to even better value for money; not just for the school sector, but across the public sector, through procurement.

We welcome the ADIT as well, in a sense, because you can aggregate within the school sector, and that gives us 2,500 sites across the East Midland region.

**Bryan Carr** I am just going to put a little bit in the debate about the RABs. I don't think the DTI have covered themselves in glory over this sort of thing. They've set up the RABs, recently renamed ADITs, and they inflicted an overhead on the RABs. However, the East Midlands RAB is doing very, very nicely, thank you, because we have some excellent partners around the table here today; but that is because of the East Midlands, in spite of the difficulties we have had from the centre.

The whole of our programme was initiated by the DTI as a national programme with a regional outlet to it. I think this is the concept the DTI still has; in actual fact its greatest benefit is being a regional vehicle with national capability. Philosophically, that's the way I see it.

**Kevin Ashford** If that is all on the aggregation sector, perhaps I could call on Bryan again to deliver his contribution, "Travelling the Broadband Highway to the Knowledge Economy."

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## In India they're actually procuring UK graduates to go out and work in the call centres

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**Bryan Carr** I'll start with a dotcom story. I went to a seminar some years ago, and the guest speaker started by saying, "You thought you were going to talk to an expert tonight. Well, you're not. I was an expert when I arrived here at 5.30pm; it's now 7.30pm. Never mind, I'll catch up tomorrow."

Over the past nine years the East Midlands has had a 5.5 per cent average increase in export goods. During that period the manufacturing industry has contracted from 35 per cent of our people employed in manufacturing, just under 20 per cent today. One reason for this is that our good exporters, our world-class companies are lengthening their supply chains, quite often by using the internet to take advantage of cheaper areas of manufacture and things of this nature.

At any one time, 50 per cent of the cargo vessels on the oceans are full of goods going from China to Wal-Mart in the US. Look at the changes that are taking place out in India, how they've harnessed an ICT revolution. They're actually procuring UK graduates to go out and work in the call centres.

I was in Thailand in August and they have a system of parking their cars where they just send a text message to say, "I'm parking my car in this particular car park." When they come

back they cancel it, and get a bill at the end of the month. The car park attendant has the master controller and he can see which cars are booked in: an automatic system. Although that's not broadband, it shows you how cultural revolutions are taking place in various parts of the world. If we're going to compete, we've got to be in on that.

We've got an ambition to be a top 20 European region by the year 2010. When I first joined East Midlands Development Agency (EMDA), we were in about 43rd position, with 1998 figures. We are now in 28th position and rising quickly. To get into the top 20 we need a step change within the East Midlands in several things.

One of those areas of course is a step change in the use of broadband, to get our productivity as high as possible. In the US, they say that GDP will increase by \$4.5trn during the next decade because of the roll-out of broadband. And that they will generate more than 13m incremental jobs in the US with the roll-out of broadband.

Here in the East Midlands, 30 per cent of our businesses do not have a computer, and that takes a bit of digesting; 40 per cent of our businesses only have a website; 60 per cent have email facilities. So we've got a lot of work to do. And the strategy really is quite simple. First comes availability of broadband, second is the take-up of broadband, and third is innovative use of broadband.

Thanks to BT we'll have 98.6 per cent availability of ADSL by July of next year. That's going really, really well. However, businesses want to transmit information at high speed as well as receive information at high speed, so our next target, within the development agency, will be a symmetrical product. In South Korea you can get 2MB symmetrical available for something like \$22.

We have one jolly good product going in Lincolnshire at the present time. Providing we get the approval on this state issue from Brussels later this month. By the middle of next year every business site within Lincolnshire will have 2MB symmetrical available at the right sort of price; so this is a real step forward for the East Midlands.

From the rural side, of course, because we don't want the rural divide, we've got the RABIT project, and we've had 416 grants for the very difficult-to-reach rural sites. That will continue because we will never be able to get 100 per cent broadband coverage.

On the broadband take-up side, we've have had a very successful marketing campaign in the East Midlands. We've had a broadband demonstration vehicle going around visiting 28 sites; 3,000 visitors; a jolly good website full of information; 300,000 hits on the website, with 6,000 enquiries.

So during the last nine months, we have taken our business, the SMEs, from something like 7 per cent who have taken ►

up broadband, to about 20 per cent today.

On the innovative use of broadband, clearly we need that if 30 per cent of our businesses don't have a computer. We've had 217 workshops, we've had 1,280 individual SMEs attending those workshops, with 2,000 employees.

The Minister attended the E-Commerce Awards which took place in London. We had the E-Commerce Awards for the East Midlands a month earlier, and all of the people went down to London to the finals. We had two winners of individual categories from the East Midlands, who were absolutely delighted about that. The two winners for the individual categories were Trade Appliances and Silly Jokes.

To conclude, I work with power stations throughout the world; 10 years ago they employed something like 1,000 people to produce 2,000MW. Now it's down to 300 people, and of course a lot of that has to do with ITC and systems. My vision of the year 2020 is of a power station being run by a person, a computer and a dog. And of course the dog is there to make sure the man doesn't touch the computer.

**Kevin Ashford** These workshops you are rolling out. Are you being ambitious enough?

**Bryan Carr** Well, I think the answer to that's got to be no, hasn't it? There still are the flat-earth people who really do believe this isn't going to affect them. It is. But it is a difficult task, isn't it, Jonathon?

**Jon McLeod** Well, what we are trying to do, particularly with the Free the EMidlands campaign is to create a sense of buzz and emergency and that is about mass public communications. Integral to the Free the EMidlands campaign is a website which conveys interactions, so if you visit the website you can register, strike a business, and begin to participate in the broadband revolution from day one.

That's why the Government wants to use our model for an engaging way of doing this. We want to create a momentum way beyond the narrow public sector "targetry", a genuine revolution in the momentum. The maximum productivity gain to rival the US, from the application of broadband.

That's going to involve engaging training, and making sure that people aren't just sort of self-taught on broadband or we won't realise productivity. How do we have a revolution which will give us more prosperity for the people of this region? That's what keeps us awake at night.

Coming back to engaging with SMEs, there is a great tendency to oversimplify the problem. If you look at the Leicestershire economy, there are about 34,000 businesses; 84 per cent of those employ fewer than ten people. Now within that 84 per cent, there is a very high percentage of older managers.



There's an awful lot of them, 45 plus, who are not ICT literate by any stretch of the imagination. It's okay to say, with broadband you can better use your computer. The question then is, "Yes, and?" There's an interesting project (I think it's The Welland partnership) which is giving SMEs advice on broadband and computers, putting the two together. And I think that's the strand that we tend to miss.

## There are a lot of companies with a small product that will never actually sell online

**Dick Peters** The year 2010 was only to have 20 per cent of businesses training online. Does training online have a particular meaning more demanding? Because, as you were saying earlier, you already had 20 per cent of businesses?

**Bryan Carr** When we set that target three years ago, the ICT revolution hadn't really started and it seemed like a good figure to have. Last year we were at 17 per cent, so we were riding high on that. But it is a confusing figure because there are a lot of companies with a small product who will never actually sell online, and they wouldn't hit that sort of statistic.

**Geoffrey Robinson** No, it seemed a very modest target. Two or three things, or refrains, seem to keep coming up, and one of them is SMEs. It is, as you so rightly said, it is the whole process of teaching, particularly in that age group you mentioned, how to use it.



**Mike O'Brien** We decided we didn't want to be a technology-flat university. but we had a lot of people who were disadvantaged, didn't have access to IT even in the workplace: catering staff, maintenance staff. So we went for availability of IT. So we started some cafes that were only for people of that kind; training that took place in their workplace during work hours. Odd people began to shine and when an individual shined they were allowed to be a trainer, to go around their friends, and we devoted money and time to that individual. So if you've got a field of plumbers, and you manage to get some interest there, you've got one plumber. How can you utilise that one plumber to help other individuals?

In FE colleges the concept of a regional support centre was set up nationally, and in the East Midlands it's run from Loughborough. And there's about half a dozen people within that regional support centre whose job is to help those individuals who have trouble with the plumbing, there to support that individual. I'd recommend to anybody to go up to that regional support centre.

**Eleanor Bryam** Bryan mentioned the E-Commerce Awards earlier. One of the winners of one of the awards last year found, when they implemented IT, that none of their suppliers could cope with the fact. They ended up training their own suppliers in the use of IT, and that cost them an awful lot of time and money. They pulled through, and they won an award for doing so, which is wonderful, but it was also said by them that, had they known at the time what they were letting themselves in for, they probably wouldn't have started.

I manage a couple of projects on behalf of the IT user skills programme; e-skills UK is licensed by government as the

Sector Skills Council for IT. They are industrial and other bodies trying to ensure that employers and employees in each sector have the skills they need. Leadership management is a barrier to take-off of IT in a lot of cases. e-skills UK can, I hope, act in some ways as a hub, with our sector skills agreement with industry, particularly in the IT user side, to try to pull together elements that are still causing those barriers.

**Keith Ashford** Are these projects very regional, very local?

**Eleanor Bryam** They're wider than that. It's across the UK. The IT user projects, for example, will be hitting all 28 million people who use IT in their jobs.

**Keith Ashford** Going back to businesses that have no use of IT at all, how would you try to tackle that?

**Eleanor Bryam** By being honest with people about some of the issues they face, and also being really able to articulate the benefits of those who work with us. Without being too flip-pant, not using technology as some kind of magic cure, "This'll do everything for you," because it won't unless you know how to use it properly, how to exploit it properly.

**Gareth Braithwaite** I mentioned earlier that businesses want a fast broadband but one that works. We're based up in Bardonia. It's taken five years to get broadband up; if we want to make a difference in this district, we've got to get SDSL.

**Kevin Ashford** So why hasn't that happened?

**Geoffrey Robinson** It's a case of doing the level of exchanges, in the pecking order. Ibstock is a typical complex, and that's the trouble. And then there's a small regional penalty, with the rural exchange, and the priority of BT is very low to get those exchanges set up.

**David Weymouth** You also have massive demands with large enterprises, and with lots of things happening at the same time. Working with a very large enterprise it seems much harder to get it to work.

**Dick Peters** I'm from Deloitte, and I see more of the bigger businesses than the smaller businesses, but the 30 per cent of businesses with no computer didn't surprise me at all. They probably do most of their business off a mobile phone, they probably only have one or two people, they probably don't keep records in a decent state. They've got to understand why they would want a computer and that's about making life easier for them in some respect. It is no good giving them an ►

accounting package if they don't understand double entry. This bit of the 30 per cent will take some cracking.

**Mick McLoughlin** We're running a pilot at the moment with the idea that small businesses don't have those experts, so we are putting together a product which is a set of individual packages that the customers can use for behind-the-scenes support, with someone to come out and help them with their ICT issues, be on call for them, if they have an ICT problem.

**Spencer Neal** I think there is a resistance coming from the way that the benefits are sold solely as time efficiency, whereas the truth is that the supplier costs have gone down. For example, the banking community, the accounting community and so on, have a lot to do in terms of being able to say, "Look, you don't need to wait for a paper statement to turn up, you can see it, and the facility we're offering you is going to cut your banking charges straightaway".

**David Weymouth** We were charging a fraction for an online transaction compared to a cheque, but the number of people who still used cheques was huge.

**Dick Peters** I would say that the smaller companies we've got are probably not IT literate, because anything much under £4-5m turnover, we're not in there. But in the smallest businesses there is a group that I would say of about 30 per cent that are never going to accept computers.

**Bryan Carr** The 80-odd per cent of our businesses that are at fewer than 10 people tend not to listen to the public sector. The way to talk to them is through peer pressure. Through EMDA we're creating a number of case studies of successful methods of implementing this, "This is what I did, this is what it cost, this is the difference it made to my bottom line", getting the case studies across to these businesses.

**Kevin Ashford** OK, Gareth Braithwaite, group IT director from Wilson Bowden is next.

**Gareth Braithwaite** Wilson Bowden is based at Ibstock. We've got 2,500 employees across the UK. Broadband came to Ibstock about 18 months ago, it just gives an opportunity to what is a very backward IT industry, that of construction. It was the local community that put the campaign together and got the 400 votes. The fact that we're a £1.2bn company, and on the FTSE 150 still only gave us one vote.

I recently had three Portakabins delivered for a site office; these Portakabins are the site office of a £25m initiative. I rang up BT to say, "I've just had three Portakabins delivered



for the site office, I'd like broadband please." The response from BT was: "What's the postcode?" We've got housing, but no postcode yet. Next question, "What's the telephone number?" We haven't got a telephone number.

So broadband has not really made a friendly initiative toward the construction industry, and there the bane of my life is that, when we actually get broadband, in five or six weeks if we want to move that to another part of the site because we're building more apartments there, guess what? We have to pay the contractor in full, ring up BT again, and take another 20 days. It is just not friendly toward an industry that is growing and mobile.

In the last 18 months we've looked at broadband to cope with disaster. We use ADSL to back up all our telecoms links, we spend up to £600,000 in telecoms a year; the back-up lines to broadband, although less reliable, we could do for about £10,000-15,000. So broadband has given us some business continuity.

So we are bringing broadband to construction sites. People can work from home. We do support security, that's a key problem and we have some very secure, very expensive systems. Broadband: £10k; security: £75k. One of our recent initiatives is getting the first house built in the UK with mobile health and safety. The health and safety inspector does a survey, puts the results in a PDA, he then presses send; that updates our mainframe. Our data mainframe then sends news alerts out to development's managing director, or construction director if that site has failed a health and safety alert.

Construction managers can see what stage a house is built up to, update the mainframe with the cash flow, update the internet site without having to come back into the office. Both of those initiatives started at Bowden. Interestingly, this one here we designed as an online system, wrote it out,

tested it in the East Midlands, it worked fine. Then we deployed it to Eastern, and the whole thing failed because the mobile phone lines across the city are full of data. We had to come back and rewrite the system to make it work offline.

We have Project Bible now for these projects. If something changes it sends an email alert out to everybody. It also tracks who's seen them so no one can say, "Sorry, I didn't get that".

On 21 February 2003, a woman was looking for a house at 9:45am and she put a request into our website at 9:49am, hit our call centre and they got back on the phone to her four minutes later; by looking through all the systems they had found her a house.

Our biggest initiative is e-collaboration. We've agreed with 19 of the 20 national housebuilders a common language for the exchange of orders, invoices, list updates and all the other things we have to do in our industry.

In the future, broadband will allow us to have cheap telephone calls to the site, buy some POIP.

If you're trying to sell broadband to the general public, if you could register your email address and, no matter which broadband supplier you go to, 2MB, 3MB, 1MB, you can just take your email address with you, that would encourage more people, I think, to look for more services. The best Christening present you could give, I think, is to buy some URL name on the web; they're good for life.

Next up, consumer lifestyle. I own a caravan and a motor-bike; if it gets pinched I use internet to track it. I listen to internet radio, which goes up to 3,000 stations which record; I listen to Bloomberg when I want, I listen to *Book at Bed-time* when I want. I'm a Huddersfield Town football fan; what's the chance of that getting played on the radio? As a value-added service, I pay £20 a year and get internet radio of Huddersfield Town's every football match played. What I've got is a tablet, just a flat screen, and it sits on the coffee table, just like a paper. If someone picks it up, it's always on; broadband comes in, transmits it around the house.

I'd say that broadband is nothing; services are everything.

**Kevin Ashford** You talk about the applications being taken up by the industry. What sort of resistance did you find?

**Gareth Braithwaite** The housebuilders all buy from the same Travis Perkins. The major house builders were saying, they were going to set up an internet portal, and you as a bricklayer could pay £2,000 for access to the portal. We thought, it's not going to work. So we got together and the whole project cost £50,000. We don't charge our subcontractors anything really, it's just free. It's just like a dictionary: the housebuilding electronic dictionary. But there was great resistance. Some of the people thought we could make

money out of this by charging £2 for every service order. Travis Perkins, once we went live with the system, cut the cost of their ordering from £75 to £1.

**Kevin Ashford** Is it costing you more at home?

**Gareth Braithwaite** It's interesting. Sky this week shut down its 51 demand services, because they were trying to charge and nobody would buy. It's about delivery. And maybe it's a value maker, some of the time. I can't help but spend a little bit more on services at home. But I travel less to do shopping.

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## It's not video on demand, it's the softer services that are affecting, changing people's lifestyles

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**Kevin Ashford** Is that what we should be aiming for?

**Mark Kendall** From an educational perspective, it's really important that the homes are there, developing their use of services. How can we improve access to learning, and critically, how do you get the parents involved in learning?

I was in a school this morning where parents are not only coming into the school, finding out what the children are learning, but they are actually improving their own IT skills as well. And that's the sort of services that I think are driving the uptake of broadband, it's not video on demand, it's the softer services that are affecting, changing people's lifestyles.

**Spencer Neal** I think the awkward thing that we're all not talking about is that there are clear advantages in becoming a broadband society, but that will involve some very fundamental changes to the way we do things. Some of these cut right across the grain as to what we think is typical of our way of life, like the Saturday trip to the market or town.

**Bryan Carr** Access to the internet has completely changed certain business models. The easiest example is holiday purchases. It is inevitable that the traditional travel agent model has to change; you see car dealers that are pure internet only; it's affected financial services enormously.

**Eleanor Bryam** The IT generation, as they're called, use ICT in multiple ways. IT is now referred to as the third skill for life. Unless we really keep an eye on it, it may come to have the same connotations as lack of literacy or numeracy skills. If you are director of a company and have always had a secretary and never written a letter, if somebody plonks you down

in front of a computer, it's not just IT skills but literacy skills that are missing as well. Leadership and management change is so key to adoption of technologies, it's unreal; it's really going to cause some suffering in the next couple of years.

**David Marsden** Gareth, what happens now to a site that cannot get connectivity?

**Gareth Braithwaite** You get a severely degraded service that you have to recover with dial-up. It's not worth it. People end up travelling back to the office. We try our best to make sure, with BT and other service providers, that there is a broadband connection in each site we build; but BT has recently been putting in fibre for the last mile and as soon as soon as you put in fibre you can't get broadband.

**Alan Sbrljanin** I would argue that there will be a point where a lack of access to technology will be a burden to locations, in the same way that it would be a burden to certain cohorts of people. It will eventually affect the capital value of the asset.

**Gareth Braithwaite** It used to be called "Location, location, location". Now it's called "Pitch the location, pitch the location, pitch the location".

**Martin Traynor** It surprises me that the public sector is putting in all sorts of programmes, £60,000-70,000 per year in capital investments across the region, but there is never a requirement to put in broadband.

**Alan Sbrljanin** Can I pick up on that. We've been trying to "spec" anything that we got involved in that didn't have any broadband connection. And in parallel to that we have an initiative, trying to make sure that the "fourth utility", as we like to call it, was addressed at the point of construction, point of the plan. There are too many examples where we get the bill, and then someone will start to read it and say, "Oh, where's the connectivity here?"

**Spencer Neal** Broadband as a utility is running around £20 a month, making it the most expensive of utilities, and the user is not certain as to who regulates its quality.

**Kevin Ashford** Gareth, who did your wireless broadband network in your home? You did. And would you say that you have some technical knowledge in your area?

**Gareth Braithwaite** Yes, I have some technical knowledge.

**Kevin Ashford** We have tremendous anecdotal evidence that



people are struggling to find wireless working in their home. And the home is an excellent location for developing a culture of connectivity.

But BT won't touch the connection between point in and the wireless connection in the home. It does fall between the two stones.

**Mick McLoughlin** To make broadband really successful, you have to make it so that it's plug and play. Otherwise, you've got to be able to understand the instructions. It's not hard for a business to offer those services. But most customers wouldn't want to pay BT for the price of an engineering visit.

**David Marsden** The technical complexity of installing Wi-Fi pales against the complexity of keeping a PC running. That fundamental intermediary is a big obstacle to take up.

**Bryan Carr** I came across one place last year where a guy was in sight of his business at his home but didn't have broadband enabled at the business. He fixed up his own transmitter from home, tin can at the other end. I was enquiring whether this was legal and he said he met with BT and no one was complaining about it. How do you go about moderating it all?

**Mick McLoughlin** If I've got my wireless transmitter close to my wall, I am sure my neighbour can use it.

**Spencer Neal** A neighbour of mine had a legitimate reason for commercial BT, and BT were only offering commercial broadband in our area at that time. He argued the case, got it and we've actually cabled our street. We've been on broadband for years and I have been a convert since then.

**Ian Griffiths** The Preston project is going to Nottingham in January. The aim of Nottingham is that you will pay £6 a year. It is funded by educational establishments there that want wireless throughout the city, in the bars and pubs, and they're going to pay £2 per student. That comes up to £40,000 in each case, which pays the aim, plus money coming in from other sources in the first place. This needs to be built on a big community to get the price right for everybody.

If Nottingham is successful, the rest of the East Midlands will follow, going back to Nottingham as being the base, then back to Manchester. And that's counting public funds to make it viable. You've got to be successful in terms of £6 a year to keep building at all. But you're going to see a real price change, I suspect, if you're going to get these groupings working together.

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## You should have broadband as a means and the money is only to be made on the services

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**John Armley** That's a classic example of a brilliant idea. They're got expertise in infrastructure, and a captive audience in the student thing, a really good way of driving that agenda. If you look at international comparisons on broadband, we're getting a whipping in the UK. Why is that?

**Mike McLaughlin** We have had a public discussion about local line and bundling, whether BT Retail considers itself a local line unbundler. That's new to the price of local line unbundling. If you get enough economies of scale then you can offer a much better service at a much lower cost.

In the US there's a lot of providers that dropped their rate from \$20 to \$2 on the basis that it would stimulate enough demand to make it pay. There's a train of thought that says you should have broadband as a means and the money is only really made on the services. But the services aren't there yet. Until then you're paying the rent.

**Kevin Ashford** Now to Dave Marsden, chief information officer, SHA East Midlands.

**David Marsden** The NHS National Programme for IT is generally accepted to be the largest civic IT project ever undertaken anywhere in the world.

To give you a scale, there are contracts for £6bn over the next ten years. In the East Midlands we've contracted with Accenture as our service provider integrator; the contract's just over £1bn, that's £200m a week spent on provisional new

IT services to support NHS delivery.

The need is to fundamentally re-engineer the foundations of our infrastructure so that we run a national health service. Progression, 2004 is the creation of a national infrastructure, to establish secure login. You think confidentiality is an issue in banking and some of the services you've talked about; it's tenfold when you get into some of the more sensitive areas of information in the health sector.

A key reform in 2005 is the creation of "choose and book". The GP determines your referral to the secondary sector and you leave the surgery with something like a subscription, which you can then take up with the organisation of your choice, rather than leaving the GP surgery with the notion that the GP will refer you to a hospital, and that hospital will contact you when it's convenient for them. It's a very, very different service.

To move through 2004 into 2005: a simple level, electronic transmission of prescriptions from the GP, to the pharmacy that's fulfilling that prescription, and then on to the prescription pricing authority, which takes all the orders.

We could also affect prescribing by putting knowledge behind information like the delivery of prescription drugs, things that pop up to say, "This person's pregnant", "This drug could cause a particular reaction".

We need to create a single-patient demographic record; to create electronic systems for the ordering of tests and results; to create a digital system for X-rays which makes that information available to all practitioners who have a legitimate right to access it. An integrative care record with social care, starting to draw in the social aspect. These are key highlights along the way, electronic transmission of the health space.

To give you scale, there are 81,000 staff working directly in the NHS, there are nine hospital trusts, five mental health trusts, running services on 125 sites. In terms of scale, the demand on you and other providers for high-speed broadband connectivity in this organisation is huge and brings with it opportunities to create.

Some of you may be familiar with NHS Direct. This is an incredible array of information to support your informed self-care on relatively straight-forward issues; [www.nhs.uk](http://www.nhs.uk) is a live site with information on getting the right treatment, finding the right doctor. Simple things like pictures that take you through the glass test for meningitis that everyone knows about. As for the health space, it's embryonic but you can create personal health record with health details; you can put personal reminders in, send messages to yourself.

At the NHS everybody is signed up to the vision and the end position. I think it's fair to say that most people are concerned about the journey. We kind of have to change the wings while the plane is continuing to fly.

**Kevin Ashford** Now Mike Kendall, head of learning and ICT for Northamptonshire County Council.

**Mike Kendall** The EMBC came into being partly as a government initiative to connect secondary schools to the internet.

In the East Midlands, it was very much a drive to create a network which allowed IT really to put the 'C' into ICT. Therefore it was about putting broadband, because we'd had ISDN before and before that, dial-up. The reality was, nobody, including BT, was able to come along with a solution that actually could provide the totality we were looking for.

That meant EMBC had to develop some capacities on its own side. So we've got kind of a mixed economy, we've got a contract with Fujitsu, that's our lead contractor, and they've pulled together lots of other contractors and we've taken quite an active role in managing the service and actually working with schools.

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## By broadband, schools mean a minimum of 2MB synchronous, high-quality connection

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So far we've got 2,200 schools within the East Midlands region. School population with teacher and pupils is about one million. We are about 60 per cent of the way through that. We started with the biggest and moved to the smallest, so we are actually now in the difficult areas of trying to get broadband connectivity into those smaller villages, into those smaller schools. We are using satellite in places.

By August 2006, we will have connected all 2,200 schools to each other and we'll also connect them to the national education network because, with the DfES, we've joined up some of its policy. But, just as we began talking about ICT plumbers and SMEs, we have a problem with ICT plumbers in schools too, and it actually became about taking some of that away. We are now in a position of managing the expectations of schools. By broadband, schools mean a minimum of 2MB synchronous, high-quality connection moved beyond ADSL. What happens in 2006 is actually quite disappointing.

There is quite a demand for growth of services. Schools want teaching and learning, e-management, e-procurement. E-procurement really isn't there, and schools are big businesses, a large segment of schools spend £5m-6m a year; a lot of money within a local economy. It's around that whole area of modernising Government and public services.

There are some real challenges ahead, real commitment. Schools are facing some sustainability challenges here. At one time schools argued, "You are forcing us to do this", but

now they actually want it. They see the impact on teaching and learning, they can see the different standards.

We're having to respond to the Gershon review; a lot of money is supposed to be being saved for local Government, and the DfES is telling heads they're part of saving money. So there's that and the fact that schools are part of the national network, that they've joined up and got broadband and improved connectivity. We are moving schools from 2MB to 10MB because of the level of demand they are making. That means we can support schools more effectively in this whole approach to public sector and strategic procurement.

But there is a readiness to work across the public sector. Perhaps not if you go in and talk to an individual school, and say, "Do you want to be part of aggregating broadband?" Bit if you say, "Do you want to be part of delivering world-class services to our citizens?" they are all on board. We're looking to see what happens on Government policy sustainability.

**Kevin Ashford** Thanks very much indeed, Mike. Dave, going back to what you were saying, from the non-specialist perspective, the changes you're talking about are massive to the average person on the street. How much of that is actually being done now, and what is being done to tell people?

**Dave Marsden** The intention is for a major campaign for the public around 2005, particularly around confidentiality and consent. There's assumed consent for sharing of information unless patients make an informed decision to withhold consent for the sharing of that information. There will be a public campaign to inform them what sort of information will be made available and to whom.

So you have to have been registered with a practitioner, and it is that role they perform; it is that legitimate relationship that will determine what information they can access, and which aspects of care they can progress using these systems.

An important innovation is the notion of a sealed envelope, into which any practitioner or any patient can place information they think will be relevant, but confidential. That envelope can then be broken by any practitioner who believes this information will be pertinent to their care at that time, but the fact that they've accessed that will be communicated to the patient's, their GP and a person called a Caldicott, confidentiality guardian. It is a very rigid model that we think will be acceptable to the public at large other than for a limited number of people.

The diversity for me is that the current model, except for individual general practices which have computerised records, the current model of most records being available on paper, and the security that exists around that, is infinitely more flawed than the model that exists within individual

institutions, which itself is satisfactory. There are, as volumes increase, inevitably some flaws around that.

**Spencer Neal** Richard Granger, who is very involved in this, said what you have to remember is that most of your confidential patient information is currently written on a Post-It note and stuck around the screen in an administrator's office, and there is no record as to who should read the Post-It note.

**Eleanor Bryam** Dave, dare I ask what your training budget is, you said something like a £6m...

**Dave Marsden** We are in the process of working up detailed plans for the implementation. My guess is, if we are spending £6m on technology, we need to spend an equivalent sum on services around that new technology. It is a new way of life, not just a project, but a new way of delivering healthcare, and somehow those people we need to take through the transition may become competent in their use of this technology; kind of go on a journey and stay on it.

The anxiety is about the pace of change. If you can imagine configuring technology to support a piece of care then you have an inkling of the change. You have a choice from facilitating to policing care, and that's a clinical debate because you may have something that pops up on screen and says, "Taking this treatment route may be dangerous".

A lovely discussion with some clinical staff in this patch is where we talked about "off-piste care", where you can actually click on a button that will take you off a structured pathway. Delivery of care is an art as much as a science. It is a matter of judgment rather than absolutes and the ability to say, "That doesn't fit the bill and we will use our judgment to do something slightly different".

The notion of creating a national infrastructure of images is unprecedented, and we need to make good and intelligent use of technologies that can store it forward. The deal that's been left is essentially a deal that anticipates patients' attendance based on appointments, and fetches images from local stores overnight so that there's less traffic during the course of the day when it's busy.

**Spencer Neal** What about education? Is there any Citrix, I'm just curious to know whether there is anywhere else in Europe, or Asia, or wherever, where these things are already working and sectors are sharing their efforts?

**Mike Kendall** The biggest example you'll find is the Korean model, which we talk about earlier on. Generally most countries are now getting toward this sort of initiative.

If you go to Germany you'll find that each of the Länder is



doing something different. So what we're trying to do is get a UK solution. Wales and Scotland, are doing something different, but essentially we are going down the same way.

**John Armley** If you looked at HE and FE, the UK is ahead of the rest of the world. The only two that are close, surprisingly, are Holland and the Czech Republic. In the US, the lack of national identity, the federal approach, makes it difficult to do things even on a regional basis.

**Ian Griffiths** I think one of the reasons there has not been a great take-up in the homes, is because in HE and FE, there's quite a substantial broadband culture for students, so there's the facilities to do the learning while they do their own work.

But now we are seeing a drop in students bringing laptops to universities; households are beginning to use them, and it's not convenient to take the computer out of the home.

**Kevin Ashford** Eleanor, are there any practical ways in which we can increase that take-up?

**Eleanor Bryam** There is a sector skills agreement being devised at the moment (we act as a hub, for the RDAs and, very importantly, industry) and that will say how we address the skills issue in the UK in the next five to ten years. If you go to [www.e-skills.com/register](http://www.e-skills.com/register), just to say who you are and where you are from, that will put you on a list so you can contribute to that sector skills agreement if you'd like to.

**Spencer Neal** Many thanks to everyone for being here. If you visit [www.newstatesman.com/considerthis](http://www.newstatesman.com/considerthis), you will see what we have been doing in our efforts to understand this whole area, to move towards a better Britain.



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