John Carrington

Interviewed by

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It's September 28th here in London, England. I am Alan Cane and this morning I'll be talking to John Carrington, a communications specialist whose business career began in the days when communications meant the post and the telephones, and who went on to lay the foundations for today's mobile phone industry. To begin with we're going to discuss that long and illustrious career, and then we'll talk about John's background, his influences, and his views on the industry today.

[00:36]
John, good morning.

Good morning.

You started your career in what was then the GPO, the General Post Office. And your father had been a postal worker. So was the GPO in your blood, do you think?

I think it was, it was probably in a bit of my subconscious. The reason I joined the GPO was, I didn't want a deskbound job. I had spent years studying, through O Levels, A Levels, degree, and I wanted a job that actually had a bit of ability. And the opportunity came up, through selection, the usual old Civil Service approach, of becoming what was then illustriously called an Assistant Postal Controller Class 2. Which was something Anthony Trollope had done in the 1840s, 1850s, when he was, they had a different title then, he was called an Assistant Surveyor of the Post. And you were the director's arm, eyes and ears amongst the head post offices in a region. So I was based in Waterloo Bridge House, which is by the big roundabout at the southern end of Waterloo Bridge. And my day started, my week started there, and from there I spent the rest of the week travelling round an area, either Kent or over into, towards Reading. It was a very large area. And it was, it was great, because it cast you in at the deep end. And the Post Office, I think quite sensibly, had a rule then that you couldn't go into a headquarters function and become a specialist until you actually learnt the ropes.

So what did the job actually involve?

Well it involved monitoring and doing studies on the way in which the posts were organised, and so were counter services, which I later became involved in as a specialist.

Yes.

So the training, which I think again was quite unusual, was, you actually went and did the postman's course, the sorting course, the counter course, as well as accounts, in the way it was done by the Post Office in those days. So it was, it was interesting. And, I always say that anyone going into a post office in 1967, when I joined, and looking at the forms, which you had to look to, would have seen exactly the same forms that Anthony Trollope had seen in the 1850s.

[laughs] Did you ever go out on the rounds with a bag on your back?

Yes. Yes, well not exactly. I mean part of my training was to do a rural post revision, around Basingstoke, in a place called Odiham. There it was, you know, up at three o'clock in the morning, out with the post to Odiham, see it all set up, and then out on a bicycle with the postman doing the, however many miles it was to do the delivery. And that was, it was amazing, in terms of understanding the, the very basics of the postal service.

[03:49]
So this was training. And at that time, what was your ambition? I mean, did you see your career in the Post Office?

I suppose I did. Because, my father had done 48 years I think when he retired, and it was, I think in those days it was something that you went into, and stayed in. And most of my, you know, guys I worked for, had been in it all their lives, well apart from the excitement of going to war, which a lot of them did. But, but it was, you know, I mean, ambition was somewhat funnelled in those days.

[04:30]
Right. So you actually joined the Post Office in 1967…

Yes.

…as, as Assistant Postal Controller Class 2. And in '71 to '73 you created and negotiated the first productivity agreements with the post and counter staff representatives.

Yah.

This is dealing with the unions, is that…?

Correct. Well what happened was that, I was fortunate in getting a scholarship from the Post Office, between '70 and '71, I went to Edinburgh University, and did a Diploma, it's now called a Master's, in business administration. And when I came back from that, which was a fantastic course, I went back into the region, and after about three months I got the tap on the shoulder, because, my dissertation at Edinburgh was on productivity agreements with the South of Scotland Electricity Board. And at that time the Labour Government was embarking upon all sorts of new projects, including productivity agreements, and therefore, almost still as a quasi arm of government, as a Post Office corporation, we were required to enter into these agreements. So, I was transferred into headquarters, working in St Martin's Le Grand, and, thrown very much in at the deep end, looking at what would make sense for productivity agreements, both with counter staff and separately with the postal staff. And, it was interesting.

It must have been, yes. Did you enjoy that kind of work, I mean, negotiations, dealing with people, dealing with the unions?

I've always felt… Yes, absolutely. It was, you know, one starts with a degree of trepidation, but I found the union folk easy to talk to. Often better informed than the management side, and I particularly enjoyed Tom Jackson, who was the General Secretary of the Union of Post Office Workers in those days, and was a great bon viveur and conversationalist.

Did you have much to do with him

Oh yes. Well, it was him and a chap called Alan Tuffin, who went on to be the General Secretary of the, what became the Union of Communications Workers…

Mhm. Mm.

…were, were, you know, daily meat to, to what I was doing. So… There were only sort of, two or three of us in the chain, and I was doing most of the work. Because it was new, and I was the only one who had any experience of what productivity agreements looked like.

[07:13]
Mm. At this time, the Post Office will have been dealing with the post obviously, and also telephones?

Yes. And Giro.

And Giro. Mm.

And, something called NDPS, National Data Processing Service, which was a sort of, you know, providing computing services for companies outside the Post Office.

And did you have much to do with that?

No. No, I, at that stage I didn't. No, no. But I…

What…

Sorry. I became involved a lot with Giro later.

Mm. But, you know, this introduction of computers, was it something that interested you at the time?

It was. It was. Although, apart from accounting, and financial, you know, anything financially related, there wasn't much exposure to, to the computing side of things. It was still something that was sent away and processed.

Mm. It was a back office function which you didn't see much of. Yes.

It was very much a back office function. And, and it was there, but we had little exposure to it.

[08:18]
OK. But in, between '73 and '75 you were negotiating with the Treasury for the Government use of PO Counters.

Yes, it was a…

What was that all about?

Well, I gained promotion to the exalted level of Assistant Post Controller Class 1 in 1973, and took over a section within Postal Finance. So I moved from what was wonderfully called Postal Pay and Grading to Postal Finance. And my responsibility was to, to look at the financial functioning of Post Office counters, and also, it was time to agree with the Treasury, and indeed some of the departments, but the way the Government works it was the Treasury that decided, what they would want the counters to do, from issuing passports to, family benefits and so on and so forth, which were all done over the counter in those days. And that was, again, very interested in, in negotiating with some of the bright minds that inhabit the corridors in Great George Street.

These were actually pretty important negotiations…

They were, it was…

…concerning a range of services the Post Office was providing.

Again, it was, it was interesting, and it was about, it was about some of the interesting people that you got to meet. And, I think that took about eighteen months to do, because, as in all negotiations, we wanted more, and they wanted less. So… But we, we did get an outcome, and that lasted for a number of years, for I think five or seven years.

[10:88]
Mm. So how high up the hierarchy was an APC Class 1 then?

It was the equivalent to an old-fashioned principal.

Right.

Which was the second level of management. So, it was, so it was, it was fairly senior.

Mm. Mm. Because after that you became PA to the Chairman, Sir William Ryland.

Yes, through a process that I never fully understood, I was selected to go and work for a chap called Sir William Ryland, who had emerged as Chairman after the GPO became the Post Office corporation. And, it was an amazing two years. It was busy. If you remember, then, we had incredible inflation. We had two tariff increases for both post and telecoms, which was political, with a big P and a small p. So I, I learnt to do fourteen-, fifteen-hour days in the office in those days, so, but it, it taught me how to turn things round quickly. You know, the old adage that you don't leave until you've dealt with it all. It won't stay till the next day.

[11:12]
What was working with Ryland like?

Well it was, it was, it was quite fantastic, because… Daunting I think is the word. Daunting. He had started as a youth in training. We go back to the point about people in the Post Office. And he had worked his way up. He was the Director of Telecommunications at the time the Post Office Tower was opened, and he became, and he had also had roles in post. He became an APC/2 at one stage. He had done, he

had seen, he had seen work on both telecoms and postal side. So he knew it all. And the organisation, everything, therefore had to come through the chairman's office.

Mm.

So it was, you know, his knowledge was fantastic, but I think he did tend to slow things down a bit. So, it was, it was incredibly busy, the volume of work. On a Friday afternoon, I always remember, it was his early leave, he used to leave at about four o'clock, with two big leather pouches of papers. And I was there till about ten o'clock. And we used to… Because most of the mail then went by train. So, another two or three pouches would leave to get on the train down to Croydon where he lived, probably about nine o'clock, half-past nine at night. And they all came back on Monday morning to be dealt with. It was, it was incredible. It was incredible.

But your feeling was, he had, he was too hands-on?

Correct.

Right. Right.

Yes, I don't think he knew how to devolve.

[12:55]
Mm. Mm, mm. And this was the beginnings of the big changes in the GPO, was it not?

Yes. Yes, I mean during, during my time with him we started to introduce the first digital exchanges internationally. Everything was, either Strowger, which was the old-fashioned clink, clunkety-click, or, there was a hybrid of that which still had some moving parts. So we started looking down the road of, of digital. And of course, the seeds of, it was called System X, which was close relationship with our, the research branch in Martlesham, had been in Dollis Hill, and that was one of the things I got involved in, the move to Dollis Hill and the opening that facility in Suffolk, and the, industry, Marconi, GEC, Plessey, Ferranti. So, I, I wasn't involved in it. Well I, I

saw the papers related to that, and obviously talked to people about it, as various approvals were sought, but I wasn't involved in the technical side of things. Probably just as well.

[14:16]
[laughs] And I suppose the GPO has always been seen as a, a slightly staid, slow organisation. What was the pressure for digitisation?

Well, it was, it was… It was some degree muted, because, in the, I think it was the late Fifties, early Sixties, there had been an experiment, or there had been a, a digital working, called Highgate Wood, which had been based on valve technology, this is before transistors came in. And unfortunately it failed. An old lag that I knew who had been involved said, the problem was apparent when they switched it on and the lights in Highgate dimmed. So I think, having been sort of, once bitten, there was a much more cautious approach to digitalisation of the network. And of course, you know, the Scandinavians, especially Ericsson, and AT&T, actually took the lead in that.

Mm. So, I mean, there was obviously pressure from the manufacturers themselves then?

Yes. Yes.

GECs and others?

Absolutely, they, they were all involved in, in trying to work a way forward for something which would satisfy domestic need and have an export potential.

Mm. But you weren't involved actually in any of that?

I wasn't, no. No, I remember the debates, and obviously saw the board papers as they, as they slid through, but I wasn't involved in that.

[15:53]

What about the separation of post and telephones in the GPO, and eventual liberalisation, what was your part in all of that?

Well I, I left, when I left the office of the chairman I took the opportunity to move into telecommunications, taking my finance experience with me. And was deputy head of the finance function for International, which was quite a big business then, we were turning over about a billion a year.

Mhm.

And, from that was, became director of strategy, commercial strategy, for British Telecom International as it became, in the late Seventies. In fact just a few weeks after Keith Joseph stood up in the House after Maggie Thatcher won the '79 Election, saying they were going to liberalise. So, the, BT actually, which was, it was still all part of one organisation, under a single chairman, but with two boards, started to prepare itself for liberalisation, and I was looking at the international arm of that. So, I was fortunate, or, to be at the first meeting, in 1979, between the Post Office and, Post office Telecommunications, and the Department of Trade and Industry, to discuss how we were going to start the process of liberalisation. Which was a, which was interesting, and, that continued, those negotiations continued long after my, I ceased to be involved. But my involvement was, looking after the international arm. Where we already had some competition. So I think we were probably slightly better prepared, because we competed with France, and with Germany, and with, Spain and others, to route international circuits through London, international traffic through London.

Right. Mhm.

And with ATT&T and others to, to have points of termination in the States and beyond. So it was interesting, learning about that business, and looking at, at what we needed to do in order to prepare ourselves for what was inevitably coming down the road.

Mm.

And in that role I, I used to visit the FCC in the States, the Federal Communications Commission, and talk to people. Because they were going through their own liberalisation, and the break-up of the Bell System.

Of course, mhm.

And, so it, it was interesting. So, my role was very much in terms of, of preparing the policy for the development of our business in a competitive environment.

[18:40]
Mm. Why had you made that move into telecoms? I mean was it because you saw that as being the, you know, most active branch of the business, or what?

Well I saw, from what I, I learnt when I was working with Sir William, it seemed to me that that was the future. And whereas 100 years before, the post, you know, the Post Office, the postal service and the telegraph service, was key to commerce, and therefore the Postmaster General was a Cabinet appointment, things had somewhat moved on, and indeed, in terms of, of the development of commerce in the late part of the twentieth century and beyond, was going to be in the hands of the ability of us to serve our customers with advanced telecommunications.

[19:32]
What did you think about liberalisation at that time? I mean after all, you had this finance background, this management background. Did you think it was a good thing?

I thought it would act as a, a spur, yes. I wasn't opposed to it. I mean there were, there were some people within the organisation who I think would move heaven and earth to prevent it; they thought that, a monopoly was a good thing. I felt that, in order to serve the customers' interest… And that's one thing I did notice over the years, until the liberalisation, the customer wasn't somebody you talked about, they were subscribers, and, the pace of development was determined, not by them but by

the organisation. And that was a thing that influenced me in terms of, a feeling that we were going in the right direction. But we had to be prepared for it.

And that preparation took what kind of form?

Well for me it was, it was interesting, because, the world in BT International in those days was one divided between voice and telex. And there were new technologies developing, using digital means, the ability to put small satellite dishes on the roofs of buildings, and, and give them high-speed data connections. So we, I dealt with people like Reuters. And, to be quite honest, the, the people who were involved in telephone or telex didn't want that as part of their portfolio, so there was me as the strategy guy, took those new services under my wing. And I started becoming involved in developing these new services, and learning about the customer needs, and I found that again quite exciting. That was in, between '81 and '83. And got to visit some places where I thought there would be an opportunity, in fact I was the first BT person to ever visit somewhere like South Korea, in Seoul.

Oh really?

And, and various other places as well which we had not been to. We had relied upon third parties to represent our interest around the world in that respect. So it was, it was interesting to see that. And obviously, my exposure with the new entrants in, in the States, who were coming along through the Carterfone decision, which allowed people to compete directly with the Bell System.

[22:10]
Mm. Did you travel much? You went to Korea obviously, but...

I think between 1976 and, really '83, I was on a plane nearly every week.

Right. [laughter]

Which is why I don't do much travelling now. I've got it out of my system.

So you travelled, everywhere in the world?

Oh yes. I've been round the world several times, many times, and, and certainly to… There are quite a few places obviously I haven't been to. I haven't been much to South America, I've only been to a couple of places there. But elsewhere, I think I've just about visited it. And enjoyed it. I always like going to new places.

And this was to do with commercial decisions.

Correct.

Not so much perhaps technology?

This was partly with the new, the new facilities that were available. It was partly technology. But, it, it was an interesting exercise. Where the technology came into it, again, it opened my eyes a bit, was, I remember looking at these new digital services for, one of the biggest customers for BT were foreign exchange, people, you know, in our top ten there were people that the public had never heard of.

Right.

And I remember doing some work with one of these in order that they could provide, we could provide digital services for them between London and New York. And after they had evaluated it, it worked, it worked very fast for them, it worked very efficiently. But they decided not to take it up, because, they said, we prefer telex because of the answerback, and which has legal force.

Oh yes.

And, so that was, that was something I took away in terms of looking at, not just the technology but the wraparound from a customer's viewpoint, what they need, not necessarily what the technology will just provide for them.

[24:11]

Right. Now in, let me see, in 1983, I think was the big career move for you, when you became…

Yes it was. Yes, I had been moving, moving towards that.

…MD of Cellnet. Tell me all about the formation of Cellnet.

Well again it was, it was, you've got to say that dear old BT gave me an opportunity which I think would not otherwise have arisen, in that there was a decision by Government that there would be a new mobile service, it would be…

A decision by Government and not by BT?

By Government. And there would be competition. There would be two network operators. BT would be one, but it had to find a partner, and the other one would come through competitive bidding.

Right.

I saw, or I was, I was tipped off, that they were, they were recruiting for the founding, or the first managing director, chief executive of this beast. And with some of the strategy work that we had been doing in International, I was aware of, of what was happening with cellular in Scandinavia. And we identified cellular as a threat to our inshore shipping, you know, ship to shore.

Oh yes.

Which of course since disappeared, for small boats.

Mm.

So I applied, and, went through the process, and was appointed. And I always remember people saying, 'Why do that? You've got a fantastic job at the moment, why are you taking this risk?'

Indeed.

But I've always, I've always enjoyed new, new territory, doing things that people have not done before. So, I mean, typical of the situation was, I had this rather nice office overlooking Holborn Circus, with a very wonderful PA who decided to come with me. Fully set up, with my own computer at that stage, would you believe. And we, we were put into an office in the, Euston Tower, where Capital Radio is, up, right at the top there. And it had been the solicitors, our solicitors, and they had moved out. So I had this wonderful room. But just a telephone. There was nothing else at all. My secretary had to use a manual typewriter for a week that she borrowed from the pool. So I think that's how people saw cellular in those days. So, but it was, it was interesting. And, what we did was, we had to do three things at that time – well had to do four. First of all start to recruit a team. Secondly was to work with others, and the DTI, in determining what standard we'd use. Because there were, there were three, or four standards then, or, I suppose only two in cellular, one was the American system called American Mobile Phone Service, AMPS, and then the Scandinavians who had been developing their 450 megahertz system for, four or five years then, was called NMT, Nordic Mobile Telephone. And they were… But the Government wanted to have its own for the UK. And, so we had to be part of that discussion. The other thing was to, to build a team, to make this work, and to negotiate with a partner who would be, who would satisfy the Government's requirement for BT not to do this alone.

Mm.

So we, we helped to negotiate, and I think the main technical expertise for that came from Martlesham, where we sponsored a, a unit. And, something called TACS, Total Access Communication System, emerged as the, as the BT, as the UK standard. We were negotiating and finally did a deal with Securicor, to become a 60-40 partnership with them, so it was a subsidiary of BT. And started to recruit the team to occupy these wonderfully shabby offices in Euston Tower. And then, start to work out how we were going to get these things into the market.
[28:42]

What is interesting, looking back, is the scepticism of so many people that this was, this was going to be worth the investment. Because the US systems hadn't launched, they were held up by FCC process.

Mhm, yes.

The Scandinavians were doing very well. But still, obviously the numbers were relatively small still by comparison with us. But what I felt was that we, I suppose, we already had a mobile system, called System 4, and there was still System 3 before that. Wonderfully commercial names of course. And the System 4, which was an in-car system, wasn't sold by BT, it was sold by Ferranti and Marconi and others. And, it was at maximum capacity, we had six or seven thousand customers. The phones were £3,000 a time.

Was that a cellular?

No, this is pre-cellular.

Mm. Mm.

And I talked… And there was a black market. But that…

I mean these were essentially walkie-talkies?

No no. They were proper telephones in cars that you could dial, and you could dial out and they could dial you. The drawback was, they needed to know where you were in the country, because the area code, there were four or five area codes for this. So if you were in Manchester, you dialled a different prefix than if you were in London. But that gave me a feeling that there was pent-up demand, and certainly going to talk to, to customers, there was, there was interest. Which we, which we actually exposed quite early on in the piece. But going on to that was, we were asked, both we and our competition, after we got the licence, were asked by the DTI if we would put up a system, a small system, before we were allowed commercially to start, which was going to be on the 1st of January 1985, to satisfy the communications requirements, or

augment the communications requirement, of a gang of four it may, or a gang of five, I can't remember now, who were meeting in London in June 1984. And, either courageously or stupidly, I said that we would do this; the competition said they wouldn't. But it taught us a lot. We put up a system, there were only about four or five cells, and they were… But it was a working cellular system. Motorola, who were our supplier, pulled out all the stops to make this work. And it covered London, central London, and a route down to Gatwick where Reagan, President Reagan, and the others were arriving. And it taught me three things. First of all, that, BT, whilst being one of the biggest sort of, major project people in the country, had no idea how to do it in a commercial environment.

Mhm.

We were, we had to find hundreds and hundreds of cells, optimise them, build them, and turn them on. And just doing these four or five cells showed me that we didn't have the expertise.

Mhm.

So as a result of that, we brought WS Atkins in to advise us, who were experts in nuclear power station, building motorways and so on and so forth. So they helped us to have an effective system working. The second one was that, we actually had, for the first time, handsets working that were hand-held. If you remember the, I think they were called MicroTAC, the…

Yes. [laughs]

They were unkindly called the brick, but the large Motorola one which was more elegant than anything else. And we equipped a coach as well. Because we were allowed to use this for a few weeks to show it to customers. And everyone that I went out and demonstrated this to, wanted one. And that confirmed in my mind that, all the doom and gloom merchants, and the fact that, you know, big brother – remember this is 1984…

Mm. Mm.

…were wrong. And, and that we, I then went back to the, the owner, you know, the shareholders, and said we wanted more money to build a bigger system. And after lots of sucking of teeth and various bits of opposition…

Mm.

Because we were known in BT as a Trojan horse, so that didn't help us.

Sorry, a Trojan horse in what sense?

In other words, we'd be there to take business away from the core, you know, the core business.

Ah. Of course.

Which is, I suppose, in a way understandable.

Mm.

[33:44]
But, we got the extra money. We learnt a lot of lessons from that. And, the other thing was that, I nearly got fired for this, but, I got our agency, or we got our agency, to do an advert for the first time, because I had just chosen and got approved the name Cellnet, which showed Ronald Reagan, it was a full page in the *FT*, one ad, a full page with Reagan on the telephone in the back of a car, saying, 'When you're out of the office, it needn't be the end of the world.' And we, from that one ad I think we got between fifteen and twenty thousand responses.

Really?

This was in June 1984. And that confirmed me… You know, we were just saying, if you're interested, send in the little coupon, as one did in those days. And we got between fifteen and twenty thousand of those. I thought, right, we have to get our head down and do this. And so, it was, it was an interesting and pretty pressured time, but we had a, I had a marvellous team. We worked together. And we realised that this was something that was going to be important. And I think also, we realised it was something that wasn't just going to be car-borne. Because all the mobile phones up to then were ones that you installed in cars.

Mm.

And therefore, we built a system in London, which was the first in the world, that was capable of supporting these hand-portables, although they were quite large hand-portables in those days.

And there was a power problem, wasn't there?

If you don't… If you have big cells, there is a lot of drain on the battery, because, the phone itself has to up its power output in order to reach the cell. And it's also a capacity issue, which cellular was designed to overcome, for more capacity than the old systems, because you could reuse the frequencies. On the old system, the frequencies you used in London, you couldn't reuse until you were in Birmingham. In this one, you could reuse the frequencies from central London, in the suburbs. And now you can use the frequencies here in Smithfield, probably at St Paul's, or even closer.

Mm.

So, that's the way it's developed in terms of creating capacity.

[36:06]
Where did you get all your expertise from to build this revolutionary system?

[pause] We recruited. We used, we used the resource that we had at Martlesham. We had radio engineers with experience of the old System 4, and putting that up, within BT, and we brought those in. And we recruited, from, from the open market, in terms of, especially, not just the engineering but also for marketing, which was a new departure for a BT organisation. And sales. Now there we are, that was an interesting one as well.

I mean the whole concept of the cells and the computer handoff, where was that expertise coming from? Was it the American experience, or…?

It was… Obviously Motorola had experience of this. But I have to say, we developed a lot of it ourselves. And thereby, again, hangs an interesting development, which came to affect me later in life, was that, so he tells me, employee number six of Cellnet was a chap called Mo Ibrahim.

Oh yes.

Who was our head of radio planning. And in those days, you did the radio planning by taking the Ordnance Survey maps and overlaying it with tracing paper, bringing back the readings from drive-rounds, and seeing where the best place was to put cells. And doing that for car-borne telephones is relatively straightforward. Doing it for hand-held devices is much more complicated. So over the period of eighteen months that it took us to launch the network from scratch, a great deal of expertise, which was not available elsewhere in the world, was developed within Cellnet.

Mm.

And of course, Mo went on later to develop quite an interesting business from his expertise, of which more later.

[38:14]
Indeed. As you said earlier, you know, you were interested in business, not so much the technology. How did you deal with, you know, coming to terms with all this new technology? Was it a problem, or did you find it pretty easy?

Well, I mean I shouldn't admit this in these circumstances, but I always feel there's some parts of it you have to understand and master. Now you sort of, get, you know, triangulation points, which you can then use to try and establish whether what you are being told is reliable or, or not reliable. So I think, whilst not a technologist, I always say, you've got to be able to bluff your way in technology. [laughter] And so I became, and I suppose I still am, quite knowledgeable in terms of, of the key elements of what we were doing, so I could judge whether what I was being told was, you know, morning mist or, or actually, you know, paid out.

[39:18]
Right. Mm. So the launch of Cellnet. Very successful.

Well it was, it was. We weren't the first away, because I took the view that we wouldn't launch, being a good BT person, until I was absolutely satisfied that the network… So we launched a week after the, after the competition, which I, I regret in hindsight, but not, one has to move on.

That was Vodafone.

It was, yes. Never talk about the competition. [laughter] But we had a network that worked, and they… The thing I learnt from that is, you don't necessarily need a network that works to launch. But, I used to… Well the other thing we'd done of course is negotiate with, probably about 40 organisations who would sell the telephones, the cellular phones, onto our network. And I remember, we did move to offices in Goswell Road, not far from here, which is where our main switch was. And I used to go down every night. Because in those days these people would telex in, or fax in, the units they had sold, for us overnight to put them on to the switch. Show you how automated we were then.

Mm.

And I used to go down and look at the numbers, and after three weeks I didn't bother, they were coming in in the hundreds.

Mm. Mm.

And I could then see that we were on a winner. And of course, then we had to concentrate on capacity. So, that was the early days of, of actually being there in the market, is actually dealing with the demand, which is a nice thing to have, but it rates all its own problems. Which is a nice problem to have.

Well, the mobile did have a slightly patchy reputation I suppose in the early days.

Some, some of which still hasn't gone away, 30 years on.

Indeed.

But… Yes, it did. And that was because of the sheer demand that hit us. And I always remember going to a conference once where, which I suppose helped me to resolve it, where, the *Telegraph* motoring correspondent talked about cellular in a speech, and he said, you know, first of all it's a novelty, and then it's an irritation, when you lose a call, and then you realise it's a way of life.

[laughs] Right.

So, he said that in about 1986, and I look at people as I walk here today, and I think he was entirely right.

[41:50]
Mm. Just remind us about the way the Government set all this up. I mean, you and Vodafone provided the network. You had these service providers who were selling the phones, and selling the services. Was that a comfortable set-up?

I think, initially, the view was that that was unnecessary, both on Vodafone's part and ours, that this was a sort of, an irritation. From BT's point of view, I came to realise that it was a good thing. BT itself could sell, it was, didn't… Cellnet couldn't sell.

Ah. OK.

So Vodafone had to have a separate arm that sold. Because, quite frankly, in having this range of people, you got, you got innovative approaches which would not have happened otherwise. So that also helped to drive the volume. If it had been left to BT and Vodafone, the numbers would have been smaller. They would still have been high, but because you had, you know, people who were very good at sales and the customer service, and some not so good at customer service, I think our volumes exceeded all expectation. And, you know, we became quite quickly the largest national network in the world.

[43:15]
Mm. Mm. Mm. You went on, from this, to become Chief Executive of BT Mobile. So, how did that come about, and what's the story

Well it was a difficult decision. I was offered this, of, as it were, managing the parent. Because we had, there were a number… Well, the other main interest was, was pagers.

Mhm.

Again, there we, we had been very successful.

Mm.

Had the largest national network in the world. And we were developing other things as well, not always successful. But… So I was offered, in the early part of 1986, a promotion to the management board of Enterprises as Chief Executive, or, it became Chief Executive, BT Mobile. And, being an ambitious bunny, I decided to move on from being CEO of Cellnet, and moved to that, but still on the Cellnet board, and responsible within BT for Cellnet.

[44:22]
So what was the relationship between Cellnet and BT Mobile?

It was a close one. Whether it was right or not, only, you know, one can't say, that, all the Cellnet employees were BT employees, they were seconded to Cellnet. The Securicor, I think only had about three people there.

Mm.

So it was a close relationship. And the network was actually owned by BT. They, they actually put up the capital for it.

Right.

So it was a, it was a way in which, I think BT had an ambition for, you know, once the thing had been proven, that it would, it would take over the total ownership. Which it ultimately did of course in the late, in the late Eighties, it became BT Cellnet, was then floated, became, and was bought by Telefónica, as O2. Now is O2. So that was the, it was a very close relationship.

[45:27]
But as Chief Executive of BT Mobile, how did your responsibilities differ from being head of Cellnet?

I, I always think I provided air cover, from, from the politics of BT. Because we had gone from little interest, apart from, we had great sport from the then chairman, who was George Jefferson, there was a lot of, there was a lot of, apart from the scepticism, there was, there was, really this was a marginal activity. As it became clear that it was going to be successful, and it was becoming successful in the States and elsewhere, it needed the ability to trade without too much interference, and I thought I could give it that air cover.

Mm.

And that was my role. The other thing is, I certainly wanted it to focus on the UK activity, on the UK market, which was a very competitive market, I mean Racal, Vodafone was a, a worthy opponent.

Mm. Indeed.

Whether they say that of us or not is another matter. But what became, you know, at the time of the cusp of my change of focus, I visited in my new role Germany, my opposite number in Germany, and in France. Now, there were no cellular networks there. There were two proprietary networks, Telecom 2000 I think the French one was called, and the German one was based on a Siemens proprietary system. And started to talk to them. There had been discussions in Europe in something called CEPT, which was the group of post and telecommunications operators, mostly monopolists, about developing a next generation cellular, and the group was Groupe Spécial Mobile, which then, it just became GSM. And that…. And the brief from the Department of Industry that I took was that I couldn't agree anything. What they wanted to see was TACS adopted by the French and the Germans. That coupled with the fact that it became clear that customers would not be satisfied with something that stopped at Dover.

Mm.

That coverage was important. Continuity of coverage was important. And we started having stories of people sort of stopping on the hill above Calais to make the last call, or the first call, into the Dover cell. So I became involved and led, as it were, the BT involvement over the next few years in the development of our business to the next generation, which would be digital, and, and provided staff to the permanent nucleus as it became within the GSM network to develop a new standard that everyone could agree to.

Mm.

So my vision at that time, which was more difficult for the guy who was running Cellnet, was to say, where do we go next? And it had to be a pan-European system.

[48:50]
How difficult was it to establish the GSM standard?

It was very difficult. From two levels. First of all from the technology point of view, you had a number of manufacturers, supported by their governments, who felt that, they would agree to the solution as long as it was their solution. And at the governmental level, you had the protection of their own industrial base, the other side of the coin from that. And so I think my, my principal contribution was to actually get a political, along with a friend of mine who was, well he's now a friend, who was the lead on this in the Department of Trade and Industry, a chap called Stephen Temple, we actually got a political accord, and the technical accord followed. So I am a signatory of the first what's called the Quadripartite, which was an agreement signed in Berlin, I think in 1987, between France, Germany, Italy and the UK, to actually work together to develop a pan-European system. And, and GSM then took up the, obviously the technical development, and, the rest, as they say, is history.

Well, and was amazingly successful, as a standard.

Yes, it's the one that's been adopted. I always remember, one of the, one of the interesting things from that period was that, I was, I think I was invited to go to China, to Beijing, in 19… again, 1987. Because they were looking at cellular. They had no real mobile networks then. And they were being campaigned by various other nationalities to adopt their standard. And they wanted to find out what Europe was doing. And, it was a most pleasurable week in Beijing. And I had lots of meetings with, roomfuls of people. There were hundreds of people there, listening to what we were doing, and what the vision was. And I found they had no technical information at all. So one of the things when I came back was, I bound up lots of documents relating to the development of GSM standard, and sent it to them. And I, I don't know, that was a small part in them ultimately, I think, saying they would go the route of GSM, because they, I say, they were being campaigned quite heavily from an opposite direction to go with a, with a different standard. So there was an appetite round the world for learning what we were doing. And, no, I, I think it was, it was a good outcome.

Mm.

Politically driven and technically driven.

Mm.

And of course, commercially driven, because that's what the customers wanted.

[52:06]
Absolutely. So you've been very successful. You created Cellnet, you headed up BT Mobile, you had helped with the creation of this really important standard. And now you move to Cable & Wireless.

Yes.

Why did you move to Cable & Wireless?

Well as always, that, it's never obvious as it seemed. In BT, you know, back to the old Civil Service mentality, you take people and you move them around. And I was, I was, my last job in BT was, I was promoted again to be in charge of all operations in North America.

Oh right.

So I was President of something called BT Inc, based in New York. And whilst that was, you know, an interesting move for me, and further up the dear old BT hierarchy, my heart was still in cellular. Because one of the things that I had been working on in my latter days at cellular was, the Government were looking to make more frequencies available for cellular, because it had been at 1800 megahertz, and I had been developing thoughts for the next generation, which I had seen, importantly, as something that would be focused almost entirely on hand-held devices. Because we had got already the size of these mobiles down to something interesting.

Mhm.

And, that something that customers themselves, individuals would pay for. Because back in 1989 even, most phones were paid for by companies. You know, both the phones were bought, and the monthly rental was paid by, the usage was paid by companies.

Right.

And I wanted to move away from that. So my heart was still in cellular. And, I had a tap on the shoulder, on behalf of, from a recruiter, from an executive search, people, to say, was I interested in going to Cable & Wireless, because they were going to bid for a, was known as a PCS 1800 network. And I, after, you know, a sort of, an agonising summer, this was in July, June/July/August 1989, I decided to, to go, after 22 years at BT, and joined Cable & Wireless, to head up their project, which was to bid for a PCS 1800 licence. And, there again, I formed a team to bid for the licence, that was our first three months' work. And we got the licence, and working with Motorola and Telefónica.

Mhm.

Which then built a, you know, built a team, learning from my, having learnt from my experience at Cellnet. I think a very good team.

Mm.

During the course of that time there were various changes in, in the Cable & Wireless hierarchy. And I think a, a sort of, feeling that they didn't want to invest as much as it would take to do.

Who was running Cable & Wireless at that time?

Well it was a chap called Gordon Owen. Eric Sharp retired, or went, and then Lord Young came in, David Young. And, there was a, there was a change, and, David

Young wanted me to leave, what was known as Mercury PCN then, to develop, or to bid for licences round the world, and, I think Gordon and others wanted to actually amalgamate. Because four PCS 1800 licences had been issued, and they felt that was too many, and there was a feeling. So, so I left Mercury and, and there was later an amalgamation to, with one of the other networks. So I didn't take Mercury PCN to launch, but moved off into developing licences, or bids, round the world. Which was again, interesting, and put me on a plane again quite frequently.

Right.

So we won licences at that period in Germany, in Australia, South Africa, Colombia, a wonderful trip to Medellín, I'll always remember. And the armed guard. And being advised, don't go at weekends, because that's when they usually settle their scores. And Bulgaria and, or, Pakistan I think. So it was an interesting period. So I was still involved in cellular, but not involved in, in the UK.

Mm. How was Cable & Wireless to work for, as an organisation?

I always thought that BT was a pretty political organisation, but it could learn lessons from Cable & Wireless. [laughter]

[57:26]
Yes, right. You moved from Cable & Wireless to MSI?

No no. I was, I was given a kick up at… I was moved up at, my last job at Cable & Wireless I, I think, I was the envy of most people, I had this responsibility, management board responsibility, for what I used to call, probably politically incorrect, the pink bits on the map, which Cable & Wireless still ran. So the main revenue earner was the Caribbean, which is a nice place to travel on business.

Right. Absolutely.

And there were places, there were holdings in Africa, places I didn't visit, like St Helena, and Ascension. Pakistan. There were 16,000 employees in my portfolio then, in 32 countries.

Right.

Which was, was interesting, because, there was a little bit of repetition in this in that, my main role was to prepare them for competition, because they nearly all operated monopolies.

Right.

And, so, it was, it was, you know, very profitable, one of the most profitable parts of, of Cable & Wireless, but, you could see what was happening elsewhere would happen with them.

[58:48]
Mhm. But this is a move away from mobile…

That's right. That's right.

…and into mainstream business really.

Yah. Although their mobile operations I helped to develop, especially in the Caribbean. Because they were not well developed. But it was, it was a general management role.

Mm.

And, you know, one that was, was very enjoyable as a sort of, various other people doing it, and you thinking about it, which, and providing air cover again, and doing all the politics. Because most of these licences existed because of good relations with governments.

Indeed.

And, going back in time, my friend Mo Ibrahim had left BT at the same time I did, largely for the same reasons, and had formed a little company which he called Mobile Systems International, which was a risk, because he saw the future in GSM when other people found it rather difficult to see how that would happen. But his business was to help design networks in, for digital, which was a completely different approach to the approach for analogue. In the end of the day, he had done incredibly well, because, GSM had finally found its feet, I think in about 1991, and, by 1995, a lot of, you know, a lot of licensees round the world were using MSI's skills, not… it started off as a consultancy, which paid its way, and then they developed a tool called Planet, which automated the design of cellular networks, which was really what you needed to do.

Yes, I remember this now. Yes.

And Mo had been really trying to get me to join MSI for some years, and I felt, the time had come for me to give up on, a very political environment, and so I, I decided to leave Cable & Wireless, and really my last big company, and go and work… Mo became Chairman, and I became Group Managing Director, of Mobile Systems International, in 1995.

Mhm.

And, you know, I had a very good four years there, helping to develop the business, although I think my main role was to bring in outside investors, which I did with Mo, who is a, a tremendous, probably one of the most able people I've ever met. And we got somebody called General Atlantic organisation invested. And then ultimately, we split the business, because one of the things that Mo had quite cleverly done and we continued to do was, where we were designing networks for bidders in cellular networks, instead of taking a fee, a whopping fee for the work that was done, Mo said, you know, 'If you're successful, I'll take a percentage.' They were only small percentages but they added up. And so that business was not really the same, or, of the same type as the software and services business, which we developed in MSI, and

we spun it off into a separate business called Cellular International, MSI Cellular International. I say, I, after, or we were, the investment from General Atlantic, and beginning to, to look at who we might sell it to, I became Deputy Chairman, which I then did, and was helping with business development, that was my main role. And then, well two things which happened, or one thing happened in my involvement was, the sale of the cellular services and software business to Marconi, I think we got about £700 million for it. And after I had, I had left completely… Because I, I had, in order to go into the cellular business overseas, there was so much travelling involved, I think I had done my bit by then, I wasn't looking for it. So, I'm still a shareholder, and so I still have an involvement that was in the company. But it was sold then, I think in about 2003, 2004, for $3.4 billion.

Who was it sold to?

I'm just trying to think. I think it was Kuwait, Kuwait Telecom.

Oh yes. OK.

KTC.

Mhm. Mhm. OK.

By which time, you know, I had developed a portfolio career, and was involved with a number of companies, and had been till last year, when I decided to concentrate on pro bono work. Largely helping them to, a lot of them were start-ups, help them to develop, trying to help find an exit for them. And I've enjoyed that, over the last, fifteen years.

And none of these companies have been particularly to do with the mobile business, or telecoms?

No, but different… You know, having worked with MSI, I got to understand the importance of quite simple computing aided technologies in… So, you know, speech recognition was one that I was involved with, providing speech to text for doctors and

hospitals and things like that, so that they could dictate their notes and it would come out in a form that would be, is usable for third parties. And we started, we did that with lawyers as well. So that was one business I was involved with. There was a degree of design in something called Commtag, which has gone on to be sold, which was a, a Hermann Hauser backed operation in Cambridge, which was, which was involved in network but not cellular network optimisation. So, there have been an array of these where the importance of, and one of the most successful was a company called Smart421, which I worked with as a non-executive director, in Ipswich, because that was, you know, quite near where I live, now live most of the time, in Suffolk, where the little bit of software that we developed to do network integration for private clients, and optimisation, I think probably added, or, took the consideration that we got for it when we sold it, up by about 80 per cent. So that was the message that I learnt. So a bit of, a number of these where technology has been important, in terms of, of taking a service and adding a system which makes the product much more customer useful.

[1:06:09]
I mean I think it's fascinating that, I mean, you started with, with the physical business of Cellnet, of having to do stuff on the ground with people; you had to, as you said, design your cells using Ordinance Survey maps; and now with MSI and others you're just trying to automate the whole process…

Yes.

…of the mobile business which is

That's right.

…a very interesting circular process.

It's, it's… Well there's two things there. First of all, it's to do with complexity. Frankly, if they were still using tracing paper and, and OS maps. We wouldn't have anything like the networks we 've got at the moment. It's so complicated, you have to automate it. And that's true of so many other things as well, especially of course in

the last fifteen years with the impact of the World Wide Web, the Internet, which has completely changed business models.

Mhm.

And we all appreciate, I think, going into a, a firm that we're dealing with, a supplier, and finding that the ease of use, of the way you communicate with and the way you can order, something like Amazon, is, is one I think is quite amazing in terms of, ease of browsing, ease of purchase, ease of fulfilment, and that is all down to the computing that's been put into, you know, Mrs Miggin's corner shop.

[pause in recording]]

[1:07:38]
Indeed. Well let me start by asking you, John, when and where were you born?

I was born in 1945, in September, in Epping Forest. And why should I be born in Epping Forest? Well the nursing home, we lived in East London, the nursing home where I would have been born, in Plaistow, was evacuated, had been evacuated to a rather nice place in the Forest, because, Plaistow being near the docks, had rather a lot of bombing. So the war, the war had just ended when I was born, but the nursing home was still evacuated.

OK. And your father, as we have said earlier, worked for the GPO.

Yes.

Did he enjoy that job?

I think he did. I think he did, for all, well I suppose for all the right reasons, in as much as, my grandfather had known unemployment, was employed in the London Docks, and my father craved stability. They couldn't afford to send him to grammar school, which he could have done, so at fourteen he left school and became a

messenger boy. And I think his ambition was to never be unemployed like this father. So he stayed in the Post Office, the GPO, from 1921 to 1967.

Mm.

Never sought promotion.

Ah. What was his actual job?

He started… Well he was a messenger boy, then he became, he passed an exam, because he was quite bright, well he was very bright, and became a sorter, at the age of, I think about, well he was, I suppose he was about, 20. And he was at the main sorting office in London, Mount Pleasant.

Ah yes.

And he was there, through the war. So… And latterly in something called the Ships Division, which was doing all the mail for HMS, thing. So he, he lived in London through the Blitz, and he used to tell me how amazing it was to go up from where they lived in East London and find buildings missing, and still fighting the fires from the Blitz, into, up to Farringdon.

[1:10:08]
You were an only child?

Yes.

Yes. Did you have a happy childhood?

I did.

Mm. What are your memories of those days, immediate post-war, what…?

Well it was interesting, looking back, we talk about austerity, and, OK, we didn't have money to splash around, but, I and the group, you know, the, where I grew up, were generally content. It was quite amazing. We didn't have cars, we didn't have… and I didn't have a telly, we didn't have televisions till 1952, we got our first television. Way ahead of the Coronation. But, it was interesting. I mean, I remember the power outages in the late Forties, when of course the system wasn't able to cope during the winter. And I remember, we didn't have central heating so it was, it was cold, but, I didn't feel disadvantaged in any shape or form.

[1:11:08]
Mm. Did your family, did your parents have ambitions for you?

Oh my mother did. My father, because of his, I think, general approach to life, which is, you know, do nothing that is necessarily out of the ordinary, would have had me do the same sort of job he did for 40 years. My mother was amazingly ambitious for me. But I suppose mothers are. But usually fathers are too.

Are they surprised how you've turned out, I wonder, the kind of jobs you've done?

Well, my mother, my mother died in 1981, so… But she did see me start to motor. And my father, I think had this, had enormous pride in what I had done, but was of course embarrassed in any way to show it. [laughter] Which is something I've learnt with my son. I'm immensely proud of him and he knows it.

And how old is he now?

He's 30 next month.

Oh, what does he do?

He's in IT. And, and the youngest liveryman of the Company in whose hall we, we are having this interview.

Oh right. Excellent.

So he, he became a liveryman last October.

What kind of IT specialist is he?

Well he's a, he's mainly involved with e-commerce, in a very, in a, in an interesting way, but… But, not in the mainstream. I don't think… No, I think he's comfortable in his skin.

[1:12:38]
OK. And just looking at your own early career. You failed your Eleven Plus.

Yes.

How did you manage to do that? [laughs]

Well, it's interesting, because, I was always described as a, a late developer.

Ah.

And that late development sort of manifested itself with all my friends going off to the grammar school and me heading towards something that gave me the frights, this school I went to, which was named after Jack Cornwell, who won a VC at Jutland at the age of sixteen and died there, in East London. Had a reputation. And I, I thought, my God, what have I done? I went there and it was fantastic. Absolutely fantastic, in terms of the teaching, in terms of… There was nobody there who was regarded as, as not an asset, or potential asset, to the community. I worked hard, and, took advantage, or, was one of the lucky ones, I suppose, depends, I'm sure nobody at Cornwell Road school left to be unemployed. I think they all had job skills. I went off to the grammar school at the age of thirteen.

In fact you were only there for a year, at Cornwell secondary modern.

That's right. But it was outstanding.

Mm. Mm.

What I realise now, because my son's the same, is that I am dyslexic.

Right.

So that's what, why I was a late developer. Nobody, nobody identified it. And, it's something that you can sort of manage over time, but I had to learn to manage it myself. And, at grammar school I, you know, was not seen as a first-class citizen until I did quite well with my O Levels, and then A Levels, and then went to LSE, which I think I was extremely privileged to do.

[1:14:35]
What did you at LSE?

Well, that's an interesting question. My… I'm still very interested in history, so I did very well in history at school. I'm very interested in it still. So I went to do international history, which is diplomatic history, from 1492, the Italian, the French invasion of Italy. But, at LSE, the old Batchelor of Science in Economics, I'm not sure how it runs now, meant you also had to do economics, government, geography, economic history, and various others. It was a very broad set of subjects. So I don't regard myself as a historian who emerged, but as somebody who was quite interested in economics thereafter. And, and… So I, I think LSE was quite remarkable for me in terms of lifting mine eyes up to things that I wouldn't have otherwise looked at. And of course, the range of people who were there. Because even in, in the mid-Sixties, when I was there, certainly most of the postgraduate students, and a lot of the undergraduates, were from overseas.

Oh yes. Yes. Indeed.

Which was, reasonably unusual.

[1:15:54]

Mhm. Looking back, how do you feel about the O Level system and the grammar school and secondary modern system these days?

I actually… There's two things. First of all, I believe that we have to nurture talent. And I don't necessarily think that's actually done as well as it might be under the current system. Grammar schools do, do borrow from independent schools in terms of an elitism. Our headmaster, who had been there since 1944, had been at Manchester Grammar, and what does to be like Manchester Grammar, and was extremely successful in turning out people with, 200 people, you know, there were 200 of us in the sixth form. It was a male-only institution, which I think we would never inflict on our son. But I do believe that because people develop at different stages, you shouldn't just have the cut at the age of eleven. There needs to be, and the Government seems to be fixed on, continuous assessment; let's use that assessment dynamically, if there is to be, doesn't have to be every week, but certainly if people start to develop in a different direction, or potential starts to emerge, then give them the opportunity to go where it can be best nurtured.

[1:17:20]
Mm. That's good. Are there people through your career who have particularly influenced you, who you particularly admire or whose example you followed?

[pause] I find that a very difficult question to answer. Because I've learnt from so many different people. I've always said, I like to work with people that I can learn from. None particularly stick out in my mind, because, I've always taken, well I take the view, that, it's not me. It's a, it's a group of people who achieve things. Left to my own devices, I couldn't have done what I did.

Mm.

But with a group of people who both work with you, for you, some of whom supervise you, you can achieve great things. And it's always been important to me that you work as a team.

Mm. Are there people in your Cellnet team you could pick out as particularly outstanding?

Well I think, I think the guy who… Well obviously Mo, who had the foresight to want to develop a hand-held system. Whereas there were a lot of other people who felt, no, it's going to be in cars. There was the guy who was the head of, who was the technical director, who has since left the industry, Bernard Mallinder, who went on to do incredibly good work at the permanent nucleus for the development of GSM, and was there for about four years, four or five years.

Mm.

And, I think, the team who actually did the hard work, who were the, the guys who had to find the sites, build the sites. John Tiernan headed that. So there are, there are people whom I look back on and think, thank you for being part of the group.

[1:19:25]
Mhm. Again looking back, what do you think your, you know, outstanding achievements have been in the industry?

I think it… Well, I'm afraid it's… Well no, it's all built round, I think, my, my liking for doing new things. So I think, bringing new digital technologies into BT International, which nobody else was interested in.

Mhm.

In realising early on that cellular was going to be successful and the doom-mongers were all wrong. In recognising that, the phone in your pocket was going to be important. And I remember that one of the last things I did before I moved on from BT Mobile is, we did some work, combination of our technologists at Martlesham and I think some marketing people, we developed a concept phone called the 'phone of the future'. Which we made a little video about, and was shown on the *News at Ten*. So we got quite a bit of coverage, and, I always remember, for months people were saying, could they order one? But it was a concept phone. And that, for the first time,

this is 1988, had the concept of the phone being more than just for answering, or making telephone calls; it had messaging on it, it had location-based information, using what we now call apps. We didn't know what they were called then. So it was, I think, a recognition that this beast in your pocket, even though we didn't have the technology to make it happen then, was the way in which the market would develop. And, I think you, you've seen it, I still have the press cutting that the *Times* did that reflects that piece of work. And I carried that concept forward into the work with Mercury PCN, which was again a network aimed at the individual with a phone in their pocket. So I think it's that, in terms of the, the market itself, and, and also realising very early on, in 1985, that a pan-European, or beyond, solution was one we needed to, to have for the customer, so that the phones worked outside our shores.

[1:22:00]
And, failures or disappointments.

I think it's… I, I think it's, for me, I, I always wonder what would have happened had I stayed at BT, had I stuck it out in the States, where I was in fact a director of McCaw, if you remember them.

Mm. Yes.

They were developing a mobile there. And not moved to Cable & Wireless. In hindsight, I, I think I've, I've done very well. And, the mistakes have not impacted on me too much. But I, I just often wonder what would have happened if I had stayed at BT, where I would have ended up, having been there 20-odd years and been seen as a lifer.

[1:22:55]
What did you think of BT's sale of O2 to Telefónica?

Well they didn't. What happened was… I'm not sure whether it was governmental or, or what, but, this is after my time.

Mm, yes, I… Yes. Yes.

There was a lot of pressure on BT to realise the underlying value of their cellular operation, which wasn't reflected in their share price. They had bought out Securicor, who did fantastically well out of all this, and they had an asset that wasn't properly reflected. So they decided, and this must be for others to judge whether it's wise or otherwise was wise, to take, to float, to do a, a floating of what was then BT Cellnet, and to, to give each existing BT shareholder shares in it. It floated very successfully, it was renamed mmO2, that was, that's what it was originally called.

Mm. Yes

Why, I've no idea. But, you know, a brand is easily done. If it's properly marketed. O2 has been incredibly successful. And within a very short space of time it seems, Telefónica came along, because they were, I think very expansionist and very shrewd investors then, almost with a monopoly back in Spain, and bought it. And, left BT as the only major in Europe without a cellular arm. Which, at the time, I said was a mistake, and which they've sought to rectify, and now they have bought EE. Because the future is about people having the phone where they are, or, a computer where they are. Because it's no longer just a phone. And judging by my walking along to this interview this morning, most people prefer to type things into their phone rather than speak into them.

[1:25:11]
Mm. What advice would you have for people setting out on a career in IT these days?

I think, there is still enormous opportunity. If you, if you want to make your name in something, IT is still one of the best disciplines or sectors going. Because, it's, it's about having a, you know, having an insight into the way in which your product can help satisfy customer need. And those customers could be industrial, or they could be individuals. There is still so much to do where the technology is able to make things easier and more satisfying for the customer. But one thing I would say that I learnt early on in the piece is, don't tell the customer about the technology. Tell them what the product does for them. And I think you won't go far wrong. So, you know, don't, never lose sight of the customer.

[1:26:32]
Looking at the way the industry has developed over the years, what do you think, and what do you think of its future?

I think it's incredible. I think that, you know, the vision that we had back in the Eighties and the Nineties has been exceeded. I'm not, in a way I'm not surprised, because, as I say, every time I showed for the first time a cellular device to somebody, they wanted it. Nobody ever said, 'How much is it?' That's probably changed a bit. But in terms of, of its, its ability to make your life easier, never mind to take over your life, it is still, there is so much still to be done. One of the interesting things I see developing is, the use of this device that you carry with you to monitor your health. And so that's one area where I think, the, the industry… And of course the industry has changed in a… When we launched, the money was made by the networks. Over time, the main profitability has moved to the people who ride on it, to the apps.

To the apps.

And I think what Apple did there is inspirational. They actually took an existing business, and completely redrafted the, the business model. And there's still more of that to be done. But I think in terms of the interaction of the device with you is probably the way… Whether we get to implants or not, of course, is not a technology or a business issue, it's an ethical issue. So there, 1984 does have a resonance.

[1:28:30]
[laughs] Fine. So if you had your time over again, is there anything you would have done differently? I know you talked about staying in the US and working for BT there, but…

No, I don't think so. I think that's terribly difficult. I've been very lucky, and I've had my moments of misery and I've still got the wheals on my back, but overall, I've been very lucky.

[1:28:57]

Mm. You've retired from the earning businesses I think now.

Yes.

What are you doing in your retirement?

Well I've got a couple of interests. My main interest at the moment, I've spent a lot of time over the last 20 years working with the livery company, with the Information Technologists, and I was Master in 2001-2002. Been involved with the charity. But… And there's…

Were you not one of the first communications people to become a…?

I was. I was. Yes, yes. Just to, to go back.

Mm.

During the launch of cellular, I became friendly with the chairman of PITCOM, whose name was Gerran Kilgerran, Lord Kilgerran, who was a very able patent lawyer who had been treasurer of the Liberal Party and got his peerage. But he was very interested in technology. And, I was having lunch with him one day, and he said, 'They're forming this new livery company, Information Technologists. Would you like to be a member of that?' Oh, well I haven't heard anything about that. There we are, with one of the biggest computer installations, you know, with cellular in the country. I said, 'Yes, by all means.' He had been, he was on the founding court, he had been asked to join to, obviously give it status and momentum. And through his good offices I became a member of the Information Technologists in 1987. So, it's 29, apparently 29 years ago yesterday.

Mm.

And I've seen it grow from, from nothing to the success it is today. Tremendous. So I, I was involved… But we have an ordinance really which says that past Masters are past Masters, and after a certain amount of time you have to fade into, beyond the

back benches. So, I still come to a lot of things but I'm not actively involved. Because you can have just, only so many old lags sitting around advising the current management what to do.
[1:31:03]
But I, I became involved, again through the livery, in something called Gresham College, which is the oldest college of further education, if you can call it that, in London. Founded in the will of Sir Thomas Gresham in 1597 and the executives of the Corporation of London and the Mercers' Company. And it was through one of my Mercer friends that I was invited to join the Council, to help them put the lectures which are given, the public lectures that are given, into the, you know, a wider circulation through the use of the Internet. Which we've been quite successful at. So there are six million downloads of our, our lectures, which are given by amazingly eminent people. The original Gresham professors included Wren and Boyle in their time. And, and we're based in Holborn, and the Museum of London. And I am now, I don't know quite why, I chair the Council. So, I, I'm looking after developing the initiatives we've got. I was responsible for asking, or getting the munificence of, the Information Technologists to sponsor a new chair, which was only the second one in 400 years, in information technology. So we now have a professor of information technology, Martyn Thomas, who…

Oh, from Southampton?

Yes.

Oh yes.

Who has experience both as a technologist and as an entrepreneur, and an academic. And he is starting to, my latest move, or our latest move, this month, this year, we've just started the academic year, is, we're putting the lectures up with live streaming, and then we're going to webinar so that people, remote people, people remote from the source of the lecture theatre, can actually put in questions and so on and so forth.

Right.

And, and we wanted to target it more, to more, you know, into more groups, like schools, colleges, and perhaps Third Age groups as well. So we're, we're evolving this model, which has worked quite well for 400 years, into something for the twenty-first century.

[1:33:32]
Mm. Are you good at fundraising?

I've done a bit of it in my time. I've learnt a lot about, about how to fundraise, yes. Whether I'm good at I or not, I, I don't know. There are other people who far better than me.

I only ask because, I mean essentially, in business IT, you've not been an entrepreneur, except in the sense of creating things, but, you haven't had to find the, the finance to found your projects.

No, in that respect I think… Somebody coined the word intrepreneur some time ago.

Indeed.

I'm probably more like that. Because of my, my formative years. Having said that, you know, when I, with MSI, we did bring General Atlantic in, we did sell the business in New York, and then, you know, took it to the next stage. So, I'm not sure, I think that was probably Mo than me. I could make the introductions, and do the leg work, but I thin, yes, he's a born salesman as well as a brilliant engineer. So, probably I have to know my limitations.

[1:34:43]
John, your, your postman's round has been a long and fascinating journey. Thank you very much for talking to us today.

Thank you Alan very much. I've enjoyed it.

[End of Interview]