

## APPEAL

### Background

- 1 On 7 April 2009, a press release announced that IBM had been awarded a Home Office contract “to continue existing UKBA fingerprinting capabilities and to build and run the database that will store the facial images and fingerprints that are needed to keep the passport in line with international standard, as well as to support the delivery of the ID card”. A copy of the press release is filed at E4 in the *Evidence* attachment to this document.
- 2 At some point, IBM conducted trials of the biometric technology products and services offered by several suppliers, on the strength of which a contract was awarded to Sagem Sécurité, which is a subsidiary of Safran Group and which has subsequently changed its name to “Morpho”. A copy of the 7 October 2009 press release announcing this contract is filed at E5.
- 3 It is assumed that a report of these technology trials exists. The report may comprise any number of documents and they may take any number of forms but, one way and another, it is assumed that taken together they constitute a report.

### Introduction

- 4 The sequence of events leading to this Appeal is listed at E1.
- 5 On 6 January 2010 the Appellant submitted a freedom of information request, no. 13728 (E2), for publication of the IBM report.
- 6 That’s where the sequence starts and it ends on 1 March 2011, when the Appellant received the Commissioner’s Decision Notice, no. FS50320566 (E3).
- 7 According to para.28 of the Notice, the Commissioner “agrees with the complainant that there is a substantial public interest in favour of ... disclosure” but he also believes that on balance the public interest is better served by not publishing the IBM report. As he says, “there is an equally weighty public interest in ensuring that the Government is able to carry out technology procurement exercises appropriately”.
- 8 If the ability of the Government to carry out technology procurement appropriately is of *equal* weight with the public interest in disclosure, as the Commissioner says, then perhaps the matter should be decided by the toss of a coin. That is an unprofitable line of argument. The Appellant prefers to read the Notice as though the Commissioner had decided that the ability of the Government to carry out technology procurement appropriately is of *greater* weight than the public interest in disclosure.
- 9 The burden of the line of argument pursued in this Appeal is placed, instead, on the appropriate conduct of the Government’s procurement of technology in this case.

- 10 It is precisely because the Appellant has strong grounds to suspect that the procurement exercise was *not* conducted appropriately that he issued his freedom of information request and his subsequent complaint to the ICO. The Appellant has submitted evidence to the Identity & Passport Service (IPS), an executive agency of the Home Office, suggesting that the conduct of the procurement exercise was inappropriate on several counts. The same evidence was submitted to the Commissioner.
- 11 It is precisely because he suspects that publication of the IBM report would help the public to decide if the procurement exercise was conducted appropriately that the Appellant asked for it.
- 12 If the Commissioner believes that this procurement exercise was conducted appropriately by the Home Office, then he is ignoring the accumulated weight of decades of evidence that Whitehall's procurement skills are lamentable.
- 13 We currently have one aircraft carrier (to follow) and no aircraft to carry. We currently have the malign regime of PFI blighting the NHS and schools in particular. We currently have the disaster of the NHS's National Programme for IT (NPfIT) which has been chronicled for years, particularly by the investigative journalist Tony Collins<sup>1</sup>, but which continues and which looks set to cost taxpayers billions of pounds with no return. And, of course, the NIS finally went down with all hands lost and absolutely nothing to show for it.
- 14 The Public Administration Select Committee is currently holding not one but two inquiries into the parlous state of public administration, including its record on procurement. As they say<sup>2</sup>, "central government is notorious for large IT projects running over time, over budget and ultimately failing".
- 15 Meanwhile, Margaret Hodge MBE MP, Chair of the Public Accounts Committee, makes the same points about incompetence and adds that Whitehall remains nevertheless unaccountable<sup>3</sup>: "Neither ministers nor senior officials make longer-term decisions with any sense that the consequences of their actions can ever come back to haunt them ... It is as if there is an unwritten rule that failures in big government are inevitable, and it would be unfair to penalise any one individual for any particular decision".
- 16 If the Commissioner believes that this procurement exercise was conducted appropriately by the Home Office, then he is ignoring not only the general history of Whitehall procurement but also the evidence sent to him by the Appellant in this particular case.
- 17 If the Tribunal agrees that the procurement exercise which is the subject of this Appeal appears to have been conducted inappropriately, then they may agree

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<sup>1</sup> Please see for example <http://blogs.computerworlduk.com/the-tony-collins-blog/2011/03/analysis-of-mps-correspondence-with-health-cio/index.htm>

<sup>2</sup> <http://www.parliament.uk/documents/commons-committees/public-administration/IQ%20final%20version1.pdf>

<sup>3</sup> <http://www.ft.com/cms/s/0/07a66742-24bb-11e0-a919-00144feab49a.html#axzz1Hssc90tS>

also that this appearance needs to be corrected. They may in turn agree that the way to correct it is by a Variation of the Commissioner's Decision Notice. The Appellant suggests one such Variation below.

### **Suggested Variation**

- 18 On the one hand, the Appellant does not wish to impede the efficient conduct of public administration. Nor does he wish to impugn the security of the nation. Nor does he wish to make crime prevention and crime detection more difficult than they already are. Nor does he wish to expose IBM to unlimited damages claims. Quite the reverse, in each case. *Ex hypothesi*, the Appellant has not seen the IBM technology trial report in question but it may be that publication in full would bring about all or some of those unwanted consequences.
- 19 On the other hand, the public must somehow be able to assess whether the procurement of this technology – biometrics, based on facial geometry and flat print fingerprinting – *does* assist public administration, national security and crime-fighting despite all the evidence to the contrary. That evidence is scattered throughout the various submissions made to IPS and the ICO, please see below under the heading *Forfeit of trust*.
- 20 The IBM report could perhaps be published with the sensitive text removed. However, the experience to date of the publication of this sort of heavily edited report suggests that so much text would need to be removed from the IBM report that the remainder would not be helpful.
- 21 The Variation suggested by the Appellant is that a trusted authority should publish its independent assessment of the procurement exercise in this case. It is suggested that this authority should be the Office for National Statistics (ONS).
- 22 Currently, there are no official statistics measuring the reliability of the biometrics being proposed for various Home Office applications such as ePassports (electronic passports). The Appellant suggests that there should be official statistics, that they should be compiled and published by the ONS and that projects such as the introduction of ePassports, ID cards, electronic residence permits, and others noted below, should be dependent on those statistics. By “dependent”, the Appellant intends that if the statistics suggest that the technology is unreliable, then the projects which depend on them should not be allowed to proceed.
- 23 It should be noted that this suggestion has not been discussed with the ONS and that the first the ONS will know of it is when the Appellant sends them a copy of this Appeal. Copies will also be sent to the Commissioner, the Home Office and IBM.
- 24 The Appellant assumes that the ONS's word on biometrics would be trusted in a way that the Home Office's cannot any longer be trusted. The reasons for the Home Office's forfeit of trust on this matter are listed below. If the Commissioner's Decision not to publish the IBM report stands unvaried, the appearance will remain that the conduct of the Home Office's procurement of

biometric products and services was inappropriate. The Appellant commends this suggested Variation to the Tribunal in the belief that it is a practical way in which the public's Information Rights can be upheld while making it easier for procurement exercises to be conducted appropriately.

### Scope of the Decision

- 25 The biometric products and services in question were needed for the National Identity Service (NIS).
- 26 The NIS was a Home Office scheme to issue everyone in the UK with a cocktail of ePassports, ID cards for UK nationals, ID cards for other EEA residents of the UK and electronic visas or residence permits for non-EEA residents. At the heart of the NIS was the National Identity Register (NIR), a database recording the details of everyone in the country. These details, including biometrics, were to be collected at a nationwide network of registration centres. And they were to be accessible over a nationwide, secure telecommunications network by anyone authorised to submit enquiries, e.g. the police.
- 27 The NIS can be traced back at least to the entitlement cards scheme proposed by the Home Office in July 2002<sup>4</sup>. Work on the NIS began in earnest when the Identity Cards Act was passed in March 2006. At that point, the old UK Passport Service became IPS.
- 28 In December 2010, the Identity Documents Act was passed, repealing the Identity Cards Act and, despite all the work of IPS and its consultants and contractors and the UK Border Agency (UKBA) and the Home Office Scientific Development Branch (HOSDB), and despite the unconditional political support of the previous government and apparently unlimited funds, there was no NIR, there was no national network of registration centres, there was no secure national telecommunications network, about 30,000 ID cards had been issued to UK nationals (just 0.07% of the 50 million expected to be in circulation at any one time) and no-one had any equipment to read the biometrics on those cards, so that they were useless from that point of view to the police and everyone else.
- 29 It may seem that the NIS was such a failure that there is no point the Tribunal considering this Appeal. That is not the case.
- 30 ePassports continue to be issued and to rely on biometrics, specifically facial geometry. Biometric residence permits continue to be issued to non-EEA residents of the UK by UKBA, another executive agency of the Home Office, and they rely on both facial geometry and flat print fingerprinting. IBM retain their biometrics contract with the Home Office. And CSC retain their contract to create a new passport application system (E4) which was intended to cater for adding flat print fingerprints to ePassports from 2012 onwards and to interface with the NIR. CSC retain that contract despite the fact that fingerprints will not now be

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<sup>4</sup> [http://dematerialisedid.com/PDFs/complete\\_hi\\_r.pdf](http://dematerialisedid.com/PDFs/complete_hi_r.pdf)

added to ePassports and the fact that there is no NIR – another example of the Home Office’s butter-fingered procurement skills.

- 31 Further, UKBA’s eBorders strategy<sup>5</sup> (electronic borders) depends in part on biometrics. So does the Cabinet Office’s Transformational Government programme<sup>6</sup>, which is currently being re-launched as the G-Digital Project (E6), part of the G-Cloud Programme<sup>7</sup>, and which depends on something called “Digital Delivery Identity Assurance”. The suspicion is that Digital Delivery Identity Assurance is a re-launch of the NIS. It’s hard to see what it is otherwise.
- 32 The NIS may have been cancelled but central government continues to depend on reliable biometrics for many of its proposed and existing schemes to work. The Tribunal’s decision on this Appeal remains important.

### **Facial geometry and flat print fingerprinting**

- 33 The IBM biometrics trial presumably assessed the offerings of several suppliers, including Morpho, to provide two identifying features for the NIR – facial geometry and flat print fingerprinting.
- 34 The Tribunal should know that, historically, facial geometry has always been the least reliable of biometrics. Dr Tony Mansfield of the National Physical Laboratory and Marek Rejman-Greene advised the Home Office in their February 2003 feasibility study<sup>8</sup> that “face recognition on its own is a long way from achieving the accuracy required for identifying one person in 50 million” and “even under relatively good conditions, face recognition fails to approach the required performance” and “facial recognition is not a feasible option”.
- 35 Facial geometry is too unreliable to establish uniqueness in a large population such as the UK’s 60 million+. And it is too unreliable to establish whether a given person matches the facial geometry template stored on an ID card or an ePassport. Dr Mansfield reports that two months after their photograph is taken, processed and stored as a template, a person’s face will have changed so much that you would do better to toss a coin than to rely on the facial geometry algorithms offered by the biometrics suppliers.
- 36 One implication is that UKBA’s deployment of smart gates at the UK’s international airports is a waste of money. These smart gates use ePassports and rely on facial geometry.
- 37 Another implication is that the Home Office’s biometrics procurement exercise was conducted inappropriately.
- 38 The Home Office’s faith in facial geometry is defended by citing a study by the US National Institute of Standards and Technology (NIST). In March 2007, NIST

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<sup>5</sup> [http://dematerialisedid.com/PDFs/Securing\\_the\\_UK\\_Border\\_final.pdf](http://dematerialisedid.com/PDFs/Securing_the_UK_Border_final.pdf)

<sup>6</sup> <http://dematerialisedid.com/pdfs/transgov-strategy.pdf>

<sup>7</sup> <http://dematerialisedid.com/BCSL/GPlan.html>

<sup>8</sup> [http://dematerialisedid.com/PDFs%5Cfeasibility\\_study031111\\_v2.pdf](http://dematerialisedid.com/PDFs%5Cfeasibility_study031111_v2.pdf)

reported on the Face Recognition Vendor Test<sup>9</sup> (FRVT) and made the then extraordinary claim that facial geometry had become just as reliable as biometrics based on people's irises.

- 39 That claim remains extraordinary today. For example, despite taking advice on biometrics from NIST, the Unique Identification Authority of India<sup>10</sup> (UIDAI), which has to register 1.2 billion Indians on their equivalent of the NIR, has dispensed entirely with facial geometry and relies for computer-based matching only on flat print fingerprinting and irisprinting.
- 40 There is something wrong with NIST's methodology for testing the reliability of biometrics. That is clear from their March 2007 report on face recognition and from their May 2004 report on flat print fingerprinting<sup>11</sup>. The 2004 report was intended to predict the performance of flat print fingerprinting in US-VISIT, the US programme run by the Department of Homeland Security (DHS) designed to check non-US nationals crossing the border. Using the prints from just two fingers per person, NIST predicted that the false non-match rate would be only (100 - **99.5** =) 0.5%: "with the proper selection of an operating point, the one-to-many accuracy for a two-finger comparison against a database of 6,000,000 subjects is 95% with a false match rate of 0.08%. Using two fingers, the one-to-one matching accuracy is **99.5%** with a false accept rate of 0.1%".
- 41 That level of accuracy was and is quite unprecedented in the history of flat print fingerprinting and, once the results started coming in from US-VISIT when the technology was in live use, NIST soon found themselves standing their previous advice on its head and helping the US Department of Justice and the FBI to lobby the DHS to register all 10 fingerprints<sup>12</sup> for US-VISIT, and not just two: "... the NIST-recommended Technology Standard is for ten flat fingerprints to be taken to add or 'enroll' individuals in databases and to conduct searches of the databases ... Thus, the current US-VISIT fingerprint collection standard (two flat fingerprints for enrollment and database searches) is not consistent with the NIST-recommended Technology Standard".
- 42 NIST's methodology models reality on computers. That doesn't seem to work. The only way to assess the reliability of biometrics with confidence seems to be to conduct large-scale field trials with the participants chosen to be representative of the whole population. IBM's biometrics trial seems to have been a computer simulation, not a field trial. The implication is once again that the Home Office's procurement exercise was not conducted appropriately.
- 43 In 2004, IPS's predecessor, UKPS, *did* conduct a large-scale field trial of facial geometry and flat print fingerprinting and their findings<sup>13</sup> were that facial geometry failed 31% of the time with able-bodied participants and 52% of the

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<sup>9</sup> <http://www.frvt.org/FRVT2006/docs/FRVT2006andICE2006LargeScaleReport.pdf>

<sup>10</sup> [http://uidai.gov.in/index.php?option=com\\_content&view=article&id=153&Itemid=13](http://uidai.gov.in/index.php?option=com_content&view=article&id=153&Itemid=13)

<sup>11</sup> [http://dematerialisedid.com/PDFs/ir\\_7110.pdf](http://dematerialisedid.com/PDFs/ir_7110.pdf)

<sup>12</sup> <http://www.justice.gov/oig/reports/plus/e0501/exec.htm>

<sup>13</sup> <http://dematerialisedid.com/Evidence/Biometrics.html#trialresults>

time with the disabled. The equivalent failure figures for flat print fingerprinting were 19% and 20%.

- 44 In the UKPS biometrics enrolment trial, people were trying to verify their identity just five minutes after their photograph was taken. Trying, and failing. It didn't take two months to demonstrate that facial geometry technology is hopelessly unreliable. Just five minutes.
- 45 As to the flat print fingerprinting results, a failure rate of 19 or 20% suggests that the technology is useless. If the right to work in the UK depended on being able to verify your identity using flat print fingerprinting, as suggested by IPS<sup>14</sup>, then 19 or 20% of people would not be able to work. Similar IPS suggestions would deny 19 or 20% of people the right to non-emergency state healthcare and to state education. The Home Office's conduct of the biometrics procurement exercise was inappropriate.
- 46 Ask the FBI what the problem is with flat print fingerprinting, as the Appellant did, and they will tell you that it's because flat prints are flat. Traditional fingerprints, "rolled prints", are taken by police fingerprint experts using ink, and they roll the fingers, so that the sides are printed as well as the flats. Flat print fingerprinting doesn't record the sides of the finger, just the flat, and so it misses 40% of the print.
- 47 With traditional rolled prints, on those rare occasions when there is a dispute among fingerprint experts, independent adjudicators are flown in from abroad to settle the matter<sup>15</sup>. That will not happen in the case of flat prints where the incidence of disputes is around 20%.
- 48 That is one reason why flat print fingerprinting evidence is not admissible in court, a point noted by the Home Office in July 2002 and ignored ever since.

### **Forfeit of trust**

- 49 Something must be done to earn back the trust in the Home Office that has been forfeited. The paragraphs above identify a number of reasons to believe that the Home Office's procurement exercise for biometrics was not conducted appropriately. Non-disclosure has not helped. Disclosure, or an independent report by the ONS, might help. The criticisms above are, in summary:
  - 49.1 The Home Office proceeded with the NIS with no good reason to believe that the biometrics it depended on are reliable enough.
  - 49.2 They allowed Transformational Government and eBorders to be advocated despite the fact that these initiatives depend in part on reliable biometrics, which the Home Office knew could not be provided.

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<sup>14</sup> <http://dematerialisedid.com/BCSL/NotWorking.html>

<sup>15</sup> Please see for example the cases of Shirley McKie and David Asbury, <http://news.bbc.co.uk/1/hi/programmes/panorama/5312452.stm>

- 49.3 They continue to let the public falsely assume that the biometrics in ePassports and the use of smart gates at international airports increase our border security.
- 49.4 They are silent on the matter of Digital Delivery Identity Assurance.
- 49.5 The Home Office ignore the history of facial geometry – an unbroken record of failure – despite being warned about it by Dr Mansfield in the 2003 feasibility study which they themselves commissioned.
- 49.6 They place undue reliance on NIST, whose predictions based on computer modelling have at least twice been proved to be spectacularly wrong.
- 49.7 They repeat the mistake with IBM, whose recommendations are also based on computer modelling instead of large-scale field trials.
- 49.8 They continue to pass off flat print fingerprints as though they are as reliable as traditional rolled prints. They aren't. The confidence we all rightly place in traditional fingerprinting cannot be transferred to the newish technology of flat print fingerprinting. The attempt to equate the two is literally a confidence trick.
- 50 When Damian Green MP was filmed feeding disk drives from the NIS into an industrial shredder<sup>16</sup>, it wasn't just disk drives being destroyed, the Home office's credibility was symbolically shredded at the same time. Not only is it on film, not only are there photographs, but now Mr Green has also placed certificates of destruction in the House of Commons library<sup>17</sup>. The NIS is dead but the Tribunal still has work to do, to confront politicians and officials and the media with the tulipmania they are suffering from that makes them all believe that today's mass consumer biometrics are reliable enough to provide the foundations for schemes like the NIS, ePassports, eBorders and G-Digital to be built on.
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- 51 At this stage the Tribunal may need some respite from the catalogue of inappropriate conduct by a great department of state. 34 more examples were identified in two communications sent by the Appellant to IPS and to the Commissioner. They are filed at E7 and E8.
- 52 E7 and E8 include attempts by the Appellant to refute the defences advanced by IPS which are not dealt with in the Commissioner's Decision Notice.
- 53 The Tribunal may note in particular that IPS proceeded with the NIS against all the well-meant advice offered to them by the House of Commons Science and

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<sup>16</sup> <http://www.guardian.co.uk/government-computing-network/gallery/2011/feb/10/national-identity-register-shredded-damian-green#/?picture=371617002&index=5>, Photograph: SA Mathieson/Guardian

<sup>17</sup> [http://www.publicservice.co.uk/news\\_story.asp?id=15802](http://www.publicservice.co.uk/news_story.asp?id=15802)

Technology Committee, the National Audit Office, the Office of Government Commerce and the DHS. All of these expert bodies were simply ignored.

- 54 In addition to the evidence already adduced, the Appellant would bring the Tribunal's attention to the following.
- 55 On 4 February 2009 the Appellant wrote to the then permanent secretary at the Home Office, Sir David Normington KCB, listing 10 errors in a single Home Office press release<sup>18</sup>. No response was received. No explanation was given how the Home Office can knowingly mislead the public.
- 56 And on 8 August 2009, the Appellant wrote to the then Chief Executive of UKBA pointing out, among other things, that she had first assured the public that smart gates at international airports would increase border security and then described their installation as a trial<sup>19</sup>. This inverted reasoning, *Alice's Adventures in Wonderland*, sentence first, verdict afterwards, all contrary evidence ignored, persists today, unaltered 18 months later.

### Postscript

- 57 On 3 June 2010, James Hall, Chief Executive of IPS, Registrar General of England and Wales, and Director General of Identity Services, announced his retirement<sup>20</sup>. Five members of the Board of IPS have stood down. IPS has withdrawn from its Globe House headquarters to the safety of Marsham St, demoralised and ostracised. When the Identity Documents Act was passed in December 2010, Sir Joseph Pilling, the first and last Identity Commissioner, lost his job.
- 58 Meanwhile, IBM retain their contract, and Morpho and CSC retain theirs. And in four days time, Sir David Normington, uprated from KCB to GCB, becomes our First Civil Service Commissioner<sup>21</sup>.
- 59 In three days time, John Suffolk stands down as the government's Chief Information Officer. His parting shot is to suggest that the top 200 jobs in Whitehall need to be put out to competitive tender<sup>22</sup>.
- 60 Something like that is needed to improve Whitehall's performance. Several things like that, in fact. One of them, it is advocated here by the Appellant, is for the Tribunal to help by considering and perhaps recommending the Variation outlined in this Appeal, a Variation which should improve Whitehall procurement while avoiding the pitfalls of full disclosure.

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<sup>18</sup> <http://dematerialisedid.com/BCSL/Normington.html>

<sup>19</sup> <http://dematerialisedid.com/BCSL/eBorders.html>

<sup>20</sup> <http://www.homeoffice.gov.uk/media-centre/news/james-hall-retires>

<sup>21</sup> <http://www.cabinetoffice.gov.uk/news/appointments-first-civil-service-commissioner-and-commissioner-public-appointments>

<sup>22</sup> <http://blogs.computerworlduk.com/the-tony-collins-blog/2011/01/outgoing-government-cio-says-re-compete-top-200-jobs/index.htm>