

**Intellect Short-Form 'Meeting-Protokoll' on BSKyB's Presentation to the Intellect Satellite Committee on 23<sup>rd</sup> February 2005.**

*Caveat: this Meeting Protokoll is intended as a quick-reference tool designed to complement any more complete meeting notes that might become available, not to take their place. It does not cover the rest of the Satcomm meeting.*

*It does not represent Intellect's formal position unless that is specifically stated.*

Meeting Date	23 <sup>rd</sup> February 2005
Name of this Document	'IntellectProtokollBSkyBpresn23Feb05'
Meeting Host & Venue	Intellect's Satellite Committee meeting at the offices of Logica-CMG, 180 Oxford Street, London.
Relevant to which Intellect Committees	IWC & RPC
List of those represented (in order around the table)	The Presenter was Mr Philip Macridis, Business Development Manager, BSKyB, who was pleased to confirm afterwards that none of the material in his presentation needed to be considered as 'confidential'. Mr Macridis runs Sky's indirect sales programmes and his career to date included 12 years at Inmarsat. Mr Macridis has been with BSKyB since 2000 and is on their R&D Steering Committee.
Meeting Objective/s	The presentation was made to Intellect's Satellite Committee by way of providing general information about the activities of BSKyB as a major user of satellite technologies.
Meeting Input Documents	None.
Meeting Output Documents	This Meeting Protokoll.
Meeting Outcome/s	<p>The presentation comprises hard copy of one made to City investors in early February 2005. The following are the key points in the sequence of the presentation:</p> <ol style="list-style-type: none"> <li>1. Sky aggregates content from multiple sources.</li> <li>2. The largest is from Chilworth to Astra involving 400-500 channels. All are transmitted using MPEG2.</li> <li>3. Sky satellite reception goes to 7.6M households in the UK (out of 22M available). PM's current target is to increase penetration to 10M.</li> <li>4. The SkyPLUS service provides a PVR/Personal Video Recorder to 650 UK households currently. This currently stores 40+ hours of videoprogrammes. The latest disc size is 160Gb, namely 4* the previous model's capacity.</li> <li>5. It is considered by Sky that the latter will 'mitigate the need for VOD/Video On Demand'.</li> <li>6. Sky in the UK experiences a low churn rate of 9.5% p.a. as compared with early to mid-20% elsewhere in the world. For households with the SkyPLUS service however, the churn rate is only 2%. Such households can retain their existing set-top box when adopting SkyPLUS.</li> <li>7. The profit level on 2<sup>nd</sup> subscriptions is 100%.</li> <li>8. <b>Concerning HDTV:-</b></li> <li>9. there is already one such service in Belgium</li> <li>10. Sky will definitely launch such a service in 2006, for which the relevant standard has already been chosen.</li> <li>11. the main source of HDTV demand is expected to be sports programmes &amp; also movies.</li> <li>12. Given that many quite expensive screens currently being sold are unsuitable for HDTV, 'the legacy issue will have to be addressed'. There is a need for 'HD-ready' labelling.</li> </ol>

	<p>13. MPEG4 will enable 4*HD channels per transponder. It is planned to do this using <i>existing</i> Astra capacity, although 'there are some issues in this area'. The alternative to Astra is Eutelsat, however that satellite is not in an optimal location, so Sky is basically committed to Astra.</p> <p>14. An investigative project was launched 18 months ago 'The Relevance of Broadband to BSkyB's business', for example over DSL. Mr Macridis commented however that French TV over DSL (also called 'IP TV') was 'hated, due to its very high recurring cost'. However, interesting marketing techniques had been employed to persuade consumers to go in for it.....</p> <p>15. <b>Concerning TV Broadcasting over DSL:-</b></p> <p>16. between 4-5 months ago it was decided that this definitely does work, however the cost of acquiring a subscriber is almost 2.5 times that of obtaining one for satellite based service. Because of this, 'TV over DSL' in the UK is only really relevant for dwellings where you cannot take satellite, namely 4M in quantity. Typically these are parts of MDUs/ Multiple Dwelling Units where there may be problems in mounting antennas.</p> <p>17. In the meantime, 2*1.75Mbps minimum namely 4Mbps is the bandwidth required, and this figure <i>doubles</i> for HDTV. The latter data-rate is only available via xDSL for short distances (1.6km) away from the telephone exchange hosting the xDSL equipment. After 1.6km the signal drops off very sharply.</p> <p>18. <b>Concerning Home Networking:</b></p> <p>19. Sky plans to become very active in Home Networking, in relation to the distribution of TV content in the home.</p> <p>20. Sky are currently testing with 802.11g, however they do not expect that to be satisfactory. They expect 802.11n to be better, offering data-rates to 108Mbps.</p> <p>21. Sky currently have development projects for 'between the set-top box and the dish antenna', also re 'moving some of the RF bits (sub-systems is assumed meant) up into the dish', also re 'decoding much bigger chunks onto transponders'.</p> <p>22. On UWB, Sky had done some work with Bristol University and had commissioned a big report in 2004.</p> <p>23. <b>On Questions re Data Services:</b></p> <p>24. Sky Interactive was launched 3-4 years ago.</p> <p>25. It should be noted that the RED SPOT can burn a dot on expensive plasma screens, and developments are needed to move the red spot around to minimise this.</p> <p>26. Sky are earning around 50M/year (US\$ assumed, but might be £) revenue from the use of their interactive services.</p> <p>27. A key kick-starter was SkyBet, where as part of acquiring a Sports Internet Group Sky had bought a Surrey bookmaker. Revenues are now at \$100M plus. (Referred to as the 'dumbing down of the UK'.....)</p> <p>28. <b>On Set-Top Boxes:</b></p> <p>29. The HD Set-Top Box will be networked via Ethernet.</p> <p>30. There will be a hybrid of satellite broadcast and 'deep archive' of e.g. B&amp;W movies.</p> <p>31. The foregoing is under preliminary consideration, along with BT (re the DSL port). The same box will connect to DSL.</p> <p>32. It is planned to launch Sky Barclaycard, to go into the 2<sup>nd</sup> slot on the set-top box which is not currently used.</p> <p>33. The return path to the satellite has a very low bit rate which is 'very thin' and not much use for data. 2-way broadband internet via satellite has now been discounted as a viable way</p>
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	<p>to go. You cannot compete with ADSL pricing, the way it is now.</p> <p>34. On <b>Advertising Revenues:</b></p> <p>35. To the question 'will PVR impact the revenue streams of some commercial channels, the answer was that 'Sky is moving away from advertising revenue'.</p> <p>36. On <b>Miscellaneous:</b></p> <p>37. One R&amp;D project is looking at Mobile, namely the DVD-H thing. This is to do with the 'Sky-to-Go' concept where you grab the news just as you are leaving for work.</p> <p>38. On Freeview, there are a bunch of Sky Channels on that service. The rationale is to try to persuade 'Digital Refuseniks' to sign up for the full Sky service. Freeview per the BBC offering is not, however, replicated over Sky's satellite service.</p> <p>(notes by Jim.Munro@Intellectuk.org on 28<sup>th</sup> February 2005)</p>
<p>'Why this Topic matters?'</p>	<p>It matters to the IWC and RPC because <b>BSkyB's plans are expected by them to 'mitigate demand for VOD/Video on Demand'</b>. This is because they foresee a world in which literally thousands of videos/films/movies will be stored locally in home-based facilities, with many downloads being undertaken on a non-time-critical-basis. If this happens then it could have a significant impact on the data rates that will be required for <i>broaderband access</i>. The latter is an important topic and is a campaign within Intellect at the present time. As part of this change, Sky envisages moving away from a subscription-only model.</p> <p>It might reasonably be speculated that BSKyB's PVR based service would be in some ways akin to alternative (and possibly competing?) facilities which will increasingly come into use in conjunction with increasingly sophisticated PCs that are configured as home entertainment units.</p>
<p>Date, Host &amp; Venue of Next Related Meeting</p>	<p>None planned.</p>
<p>Additional Intellect Actions required before the latter Meeting</p>	<p>Distribute this Protokoll to IWC and RPC.</p>
<p>Any other key Information Points</p>	<p>The following information on HDTV standards was very kindly supplied subsequently by:</p> <p><a href="mailto:Thorsten.Hervet@Intel.com">Thorsten.Hervet@Intel.com</a> on 1<sup>st</sup> and 3<sup>rd</sup> March 2005 respectively:</p> <p>Jim,</p> <p>unfortunately parts of the thread seem to be missing.</p> <p>--&gt; What are you looking for? HDTV codecs, HDTV transmission, HDTV logo?</p> <p>The only thing really going on on European level is HDTV broadcast over satellite (Euro1080) using the 1080i spatial format but adapted in the temporal domain to 50 Hz. In addition EICTA agreed a HD ready logo for display equipment. In short, this prescribes greater or equal 720 vertical lines, 16x9 aspect ratio and availability of digital, protected inputs.</p>

Pressure is increasing from HD DVD and from Blue Ray, but on broadcast that's more or less all.

Any specific question you have?

Regards

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Jim,

Richard Freudenstein yesterday announced BSkyB will use 720p AND 1080i (they prefer 720p but some material will require 1080i) and DVB-S2 transmission.

The will encode with MPEG-4 (he didn't say whether part 2 or 10) and they will provide for HDMI/HDCP output and comply with the EICTA HD ready requirments.

The STBs will be provided by Thomson.

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and by [Laurence.Harrison@Intellectuk.org](mailto:Laurence.Harrison@Intellectuk.org) on 3<sup>rd</sup> March 2005:

We had a meeting with Sky this week and covered HD in some depth. They believe that the market should decide which HD standard is adopted and are therefore building dual capability into their boxes (1080i and 720p). CE manufacturers are making an increasing amount of "HD Ready" equipment to support Sky's move to

	<p>HD and the imminent introduction of HD-DVD/Blueray and HD games will raise consumer demand for HD content and put increasing pressure on other broadcasters/content providers to move to HD. However, the PSBs have digital switchover to worry about though and so it may be some time until they move into HD in a big way.</p>
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