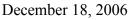
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## **Holliday's Holiday Horoscope – 2007**

## Top Ten Telecommunications Forecasts for the New Year

{An annual collection of predictions for the New Year by Clifford Holliday, an IGI analyst and author of the Lightwave Series. It is intended for your information and, in some cases, amusement. Many details of these forecasts are available from the author's latest reports ("Internet Growth - 2006," "On the R-OADM to the Lightwave Network," "FTTP- Still the Big News in 2006," The Next Generation Network — Will the RBOCs Get Googled Up," and "How Much Bandwidth Is Enough in the Access Network?" which can be obtained from the Information Gatekeeper's web site <a href="www.igigroup.com">www.igigroup.com</a>.}

Could it be that another year has gone? It seems just a few days ago, no more than a week or two, that I was thinking about the likely events in 2006. Now here it is time to talk about 2007!

The following is a continuation of our series of annual forecasts for wireline telecommunications (a strange term now that almost no new stuff is wire.) Before we go into our predictions for 2006, we feel compelled (if we had not done well, we probably wouldn't feel so compelled) to cite our results for the last few years. Our Horoscope for 2003 was only slightly over half right – but batting .500 pays big money in the major leagues! In 2004 we outdid ourselves by achieving a better than 70% result. The 2005 result was even better at about 85%. For 2006, we did very well, also, achieving a 77.5% grade. The details of the 2006 forecasts (with my grading) are posted on the Information Gatekeepers' site www.igigroup.com .

Let us look now at our predictions for 2007. (To help those wanting to get a quick look at the actual predictions, and not to be bothered with my reasoning or lack thereof, the actual predictions are underlined.)

We invite you to review the forecasts and let Dr. Polishuk (ppolishuk@igigroup.com) or me (c.holliday@ieee.org) know what you think about the forecast. We may publish the most interesting (or amusing, or both) responses.

1 Capital Expenditures –The 2006 rebound in capital exceeded our forecasts (actual of about 14% compared to our estimate of 10%.) The levels of capital expenditure by the major telcos (the others are important, too, but the RBOCs spend so much more than everyone else, the others don't matter much) had been so low for the last several years that basic asset replacement needs were not being met. Perhaps this is part of the reason for the strong rebound in 2006. Certainly, replacement of hurricane damage and the FTTP programs also heavily drove capital expenditures this year. We are again predicting an increase, but not as much as 2006. The RBOCs have started (in varying degrees) several new capital programs that will tend to require more capital expenditures; however, the upfront costs of some of these programs have already been incurred. We are therefore forecasting a 10% increase (2007 over 2006) in capital expenditures by the major telcos, cable companies and IXCs. Most of this will be from the RBOCs. Our report "The Market after the Mergers – The Telecom Economy Today," now available from Information Gatekeepers, details this forecast.

**2 High-speed Access** – We write a complimentary quarterly report on h-s accesses, also published by IGI, consequently this is an area of great interest. We believe (and we can show the calculations to strongly support that belief, see our report "Internet Growth - 2006,") that this is now the main source of traffic growth on our backbone networks. We think that h-s access penetration (percentage of households equipped with h-s access) has reached the part of its 'S' growth curve that goes up dramatically. Last year we had predicted that it would reach 48% to 50% and it did at about 49%. In 2007, we predict an even faster growth rate with h-s access achieving 54% - 57% penetration by year's end as measured by US households.

(Please note that there has been some misleading information published about this rate. The penetration rate refers to the percentage of households in the US equipped with h-s

access service. It does not refer to he percentage of people with access to h-s any place, i.e., home, work, etc.)

3 High-speed Access, Part II – A major battle is in progress between the cable companies and the telcos for dominance in the high-speed access arena. The cable companies achieved a two to one lead over the telcos that stood up through 2003. However, in 2004, (might we be permitted to say, "Exactly as we forecasted,") the RBOCs began a massive effort to correct this situation, and the two to one lead melted to about 61%-39%, still in favor of the cable companies. Last year we predicted that the telcos would cut this led to 50%-50%, but it only reached 54%-46%. For 2007, we predict that this trend will continue, with the telcos achieving parity (50%-50% including FTTP) probably by mid-year, but certainly by the end of the year.

4 Network Traffic – We have been forecasting network traffic for several years. This has been really a 'give me' forecast for several reasons. First, there is no 'network' in the sense that one can measure things on it. Then the question of measuring the traffic (if there were a single network) is also problematical. However, in spite of these very formable problems, this issue is very important. Traffic growth is the source of investment need, and profit growth. It is really the basis of our business. Therefore, we try to estimate the increase in traffic on the network every year. Last year we estimated that network traffic would increase by 150%. We have recently completed two reports on network traffic ("How Much Bandwidth Is Enough in the Access Network?" and "Internet Growth – 2006.") In preparing these reports, we concluded that 150% is too high a growth estimate for the backbone networks, and that it is more like 50%.

For 2007, we predict that network traffic will begin to be influenced by IPTV traffic (even though IPTV will be on its own networks) and that IP will begin to seriously usurp ATM/frame rely in many sub-networks.

5 Mergers – This is the forecast that we hit out of the ballpark in 2005 and again in 2006. We correctly predicted the RBOC – IXC mergers in our 2005 Holiday Horoscope and the Lucent – Alcatel merger in the 2006 version of the Horoscope! For this year, we continue to feel that there are too many major equipment vendors in the US. We just think that the market is too small to support Lucent/Alcatel, Nortel, Siemens, Fujitsu, Ericsson, and the others. We predict that, again, one or more of the large, traditional telecom vendors will be involved in a major merger, or will leave the US market.

- **Mergers II or "Who's Going to be Googled Up?"**—There has arisen a new class of telecom competitor in the Googles, Yahoo! and MSNs of the world. These customers/competitors have found ways to profitably use the growth of data traffic in their basic businesses much more so than any of the traditional telecom companies. Last year we predicted Google would become very active in telecommunications, which it did. This year we are predicting that one or more of these companies will make a dramatic move toward direct, active participation in the telecom market place. Our report, "The Next Generation Network Will the RBOCs Get Googled Up?" deals with this in detail.
- **7 Regulation** The 2006 trend towards lighter regulation will continue. With that in mind, we make the same prediction as last year: the network access sharing rules will continue favoring the incumbent carriers; that the Internet will continue untaxed; and that any prospective telecom vendor merger will be allowed.
- 8 Network Modernization and the NGN- Our existing network, at almost every level, is a conglomerate of various generations and types of technologies. There has been substantial work done on the development (from a standards viewpoint) of a Next Generation Network (NGN.) Capital constraints have previously prevented the initiation of any real replacement program for the older technologies. In addition, while we have been in a deep freeze as to investment, technology and product advancements have continued. While capital may be loosening up a little, there is still a strong pressure for profitability, suggesting the need for expense containment. For all of these reasons, we predict a definitive movement towards a NGN in 2006. This is much the same as last year's prediction, and we will likely carry it for several years, as it is a long-term venture. This program will be based on elements like ROADMs, next generation DWDM, next generation SONET and optical switches. It will be directed at making the network, more flexible, more reliable, and less labor intensive. Our report, "The Next Generation Network Will the RBOCs Get Googled Up?" outlines this prediction in great detail.
- **9 ROADMs** As noted under Network Modernization, we believe that the time has come for Reconfigurable Optical Add Drop Multiplexers (or as we say in Texas, "Rode 'ems.") The RBOCs will begin to deploy these elements in metro networks, and the IXCs and cable companies will continue to use them in long-haul networks. We predict that there will be substantial further deployment of ROADMs in 2007. Again, this is similar to our 2006 prediction. Our report "On the ROADM to the Lightwave Network," details this.

10 FTTP – Verizon continues its FTTP program vigorously, and has added video to its offering. SBC has begun its program (although it is slightly different from Verizon's) and BellSouth appears to be somewhat uncertain due to the pending merger. For 2007, we predict that SBC will enter the FTTP arena (with their version) and will be pursuing a strong deployment all through the year and that BellSouth will begin a similar program (to SBC) by the end of the year. Our report "FTTP – Still the Big News in 2006," details these forecasts.

So, there are our predictions for 2007. We hope they will be useful to you, or at least have offered you a laugh or two. <u>Happy New Year to all!</u>

## Notes to the media:

For interviews with Dr. Polishuk or Clif Holliday (author of the Lightwave Reports) please contact Dr. Polishuk at 617-782-5033 or at <a href="marketing@igigroup.com">marketing@igigroup.com</a>

Charts and graphs from the latest IGI telecom reports, noted above, can be made available to media outlets as needed, as can information from our latest reports on Network Traffic, FTTP, NGN, and R-OADMs.