



Two Sides to

Sandy Says: The Future ... As Expected

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A telecom industry veteran, Sandy spent 18 years with AT&T before moving to the broadband world. She joined her husband Dave Waks in their consultancy, System Dynamics, in 1996 and has been focused on consumer broadband ever since. Sandy splits her time between consulting, co-writing a monthly report on new broadband developments, and being a Skype video-addicted grandmother.

It was spring cleaning time and among my files I came across a project we did for a mid-sized MSO from 1996 to 1999. As I was thumbing through those folders (always a good way to procrastinate), I was struck by how many of today's cable services are ones that we anticipated back then.

I was intrigued by a 1997 survey the MSO had done on home PC use by their TV subscribers. Their customers were quite sophisticated technologically. PC and Internet penetration were unusually high, due to high-income levels and the employers in and around their franchise area.

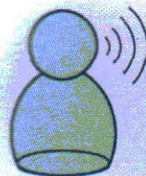
The survey results were a reminder of how much has changed. Nearly all households reported a modem speed of 33.6 kbps or less.

Most were still using DOS and two-thirds said they did not plan to purchase Windows 95 for their current or a new machine within the year.

Our assignment was to help the senior executives plan the technology migration and strategy to carry the MSO into the 21st century. The franchise was coming up for renewal and our plan would be used both to convince the parent company to continue in the cable business and to win a renewal of the franchise. We were asked to create a comprehensive 15-year plan reflecting both revenues and costs.

Renewing the cable infrastructure would represent a large part of the cost. When built nearly 15 years earlier it was state of the art, with dual 450 MHz cables, reverse amplifiers on all legs and fully two-way enabled. But it was still all coax, with amplifiers over 45 deep on some legs. Although modern when installed, it represented a challenge for advanced digital services and needed to be rebuilt with HFC.

Projecting revenue over 15 years required a close look at the planned service evolution, including what the competition would be doing. We examined the services we thought would be necessary and the technology and competitive implications for each service.



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High-speed data service topped our list. The franchise area was a strong base for telco competition —

waiting for a full HFC rebuild would lose the market to DSL. So we planned to launch high-speed data over the coax plant. A technical trial proved that would work if we limited the number of amplifiers in cascade.

We and our client felt that there was a huge untapped market for high-speed data in small businesses and home offices. To test that hypothesis, we conducted a market trial of data services with users that fit our criteria. The results confirmed that the willingness to pay of those customers was much higher than that of the average home user.

However, those users also required some capabilities that differentiated

their services from those that satisfied the mass market.

In particular, we believed that businesses required performance guarantees, with customer service and support separate from and superior to that for “standard” consumers. We anticipated that speed and bandwidth requirements would grow rapidly and that whatever speed and capacity the MSO provided would get out of control if all services were flat rate. The revenue plan was based on tiered services for both business and residential customers, differentiated by performance and support.

The plan accounted not only for speed and capacity growth and tiered pricing, but also anticipated a range of new services to be introduced over time. These included VOD, IP telephony, HDTV and niche digital services.

We designed a digital migration strategy, expanding one cable beyond 450 MHz and providing a digital multicast of all 120 analog channels, so that new customers would be all-digital from the beginning. Over time analog bandwidth would be reclaimed to provide for new digital services.

Looking back at the plan, it seems like we envisioned the future we have arrived at today. Not bad, huh?