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TELEPHONY UNPLUGGED:
WIRELESS ACHIEVES PRICE PARITY WITH WIRELINE

THE WIRELESS CONVERSION PARADIGM

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Telephony Unplugged: Wireless Achieves Price Parity with Wireline

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COMPETITIVE MARKETPLACE RULES

Wireless service can now claim price parity with wireline service 16 years after the FCC issued the first cellular license. Wireless offers the lowest prices to heavy users, but market momentum should rapidly make wireless less expensive than wired for a majority of customers. Two million homes have already converted to wireless. If only 10% of residential telephone customers convert to wireless, it will double the size of the wireless industry. This reality leaves the Bell operating companies with a dilemma. In order to maintain dominance of the wireless marketplace and profit from the wireless conversion business, they must participate in the destruction of their even more profitable local service monopolies.

Cell phones cost over $3000 and airtime cost more than $1.30 per minute in 1984. Carriers ended that first year with fewer than 100,000 customers in the US. Carriers now distribute many cell phones for free. Airtime that can go for 10 cents per minute helps attract 67,000 new customers per day. The industry serves over 100 million subscribers, employs 160,000 people, generates 50 billion dollars in revenues, and continues to grow at over 20% per year.

The consumer price index increased 72% while the wireless industry found ways to discount their services by 92%. The 20 fold price advantage enjoyed by wireline over wireless in 1984 has disappeared and completely changed the business case for who represents a potential wireless customer. Even a slight price disadvantage kept wireless a complementary service to wireline. Price parity with trends toward price advantage for wireless lead wireline to become the optional service customers pursue only for fax, Internet dialup, or to preserve a well established number for incoming calls.

The different outcomes observed for the monopoly local wireline and the competitive wireless markets represent a monumental unplanned economics experiment as the same companies played a role in both industries. How could the same companies achieve such different outcomes in creating value for their customers? Technical innovations lowered the cost of handsets and base stations, but what motivates one industry to innovate and another to stagnate? Competition. Technical innovations can happen in many industries, but significant price performance improvements only happen in competitive industries. The price regulated monopoly wireline companies apparently only faced the business necessity of keeping price increases aligned with inflation.

Partisans can argue the price parity claim, but the end user represents the only true arbiter in discussions of relative value. An objective assessment of relative value does not exist. This general assessment of price parity and the hypothetical comparison of telephone bills contains subjective elements the market may or may not validate. The incumbent monopolies have their reasons for raising prices at least sufficient to convince the FCC and other regulators. Let the games begin.

DESCRIPTION	VERIZON	NEXTEL
Base 1000 minute plan	-	$129.95
Monthly Charges - 1100 minutes[1][2]		
Unrestricted Exchange Access	$ 7.90	included
Unrestricted Intercommunication	$ 17.33	included
Federal Subscriber Line Charge	$ 6.16	-
Federal Universal Service Fund	$ .18	$ .35
Local Number Portability Surcharge	$ .23	-
Local Usage Message Units (200 calls)	$ 18.20	included
Relay Center Surcharge	$ .06	-
911 Fee	$ .60	included
Local Calling - 429 mins (39%)	$ .00	included
Unlimited incoming calls	included	included
Intralata Toll[3] - weekday 132 mins (12%) $.12/min	$ 15.84	included
Intralata Toll[4] - weekend 77 mins (7%) $.05/min	$ 3.85	included
Interlata[5] - weekday 264 mins (24%) $.09/min	$ 23.76	included
Interlata - weekend 154 mins (14%) $.05/min	$ 7.70	included
Calling Card[6] - 44 mins (4%) $.15/min + $.75/call	$ 13.35	not applicable
Enhanced Services		
Caller ID Deluxe	$ 7.00	included
Voicemail	$ 8.00	$3.00
Call Waiting	$ 4.10	included
Total Monthly Charge	$134.26	$133.30

Table 1: Cost of equivalent monthly services from Verizon and Nextel

[1] Verizon rounds calls up to the nearest minute, where as Nextel bills to the second. Calls might end with uniform probability anywhere in given minute, thus the Verizon rounding scheme will cost callers an average of 30 seconds per call. The customer model assumes 200 calls, so the comparison requires 1100 Verizon minutes to match 1000 Nextel minutes.

[2] In order to address the sensitivity to time of day, day of week, and inter versus intralata calling, the comparison uses the averages for residential customers documented in the FCC Report "Trends in Telephone Service" March 2000.

[3] Intralata toll charges range from 10 cents per minute to 22 cents per minute depending on the state. The comparison used 12 cents as a representative value.

[4] The Intralata toll weekend rate was a special offered by Verizon at the time of the comparison and may not be widely available.

[5] The Verizon long distance rate is currently available only in New York.

[6] Based on the best available Verizon calling card offer and assumption of 8 - 5 min calls and 1-4 min call.

CUSTOMER MODEL

The comparison does not include federal, state, or local taxes. The comparison does not include consideration of directory services as they also don't differ substantially in price. Operator services were not considered. The noted Nextel price plan is available nationwide.

The complexity of local telephone bills makes comparisons difficult. The author uses himself as the reference customer by capturing information from actual telephone bills. The cost of local wireline service depends on many factors, including; local provider, total minutes, time of day calls occur, day of week calls occur, duration of calls, local calling area options, long distance discount plan, value added services selected, and use of calling cards. The specific Verizon charges used for the comparison apply only to Maryland. Local service bills in other areas may have other charges or the same charges with different names.

Variability arises in other areas. Second and third lines may cost more or less than the first line. Business use costs more than residential use. Users in urban areas pay more than rural areas. Companies offer bundle pricing and special time limited offers. The differences may yield price parity for customers at different times, but the trend toward parity and price advantage for wireless seems irrefutable.

MOBILITY FOR FREE

The wireless industry markets primarily to business users as they tend to have the greatest ability and willingness to pay for mobile communication. Home users seem less likely to pay for the privilege of mobility, but the comparison reveals an alternative perspective. Home users might decide to pursue wireless services as the least expensive option at home and obtain mobility for free.

A NEW MARKET FOR WIRELESS SERVICES

The traditional focus of marketing cell phones to business users left cellular representing only 6% of total telephone traffic in 1999. Traffic generated by the consumer residential market accounted for 60% of total telephone traffic during the same period, thus the home user market offers significant potential for a wireless industry that continues to reduce prices. The limited data available seems to support this potential. Depending on the survey, between 2% and 7% of cell phone users report the cell phone has replaced their wireline phone. Surveys reveal that between 12% and 18% of wireless traffic originates in the home displacing wireline phone usage.

The home user as wireless customer makes particular sense with respect to enabling personalization of telephones and telephone numbers. At one time, telephone users relied on party lines shared between families. Ninety-four percent of homes have individual numbers today, but wireless conversion allows each member of a household a private telephone for nominal cost. Wireless phones have a much more personal association than home telephones. People maintain a proprietary view when giving out cell phone numbers. Wireline phones in the home serve a community function rather than a personal one. Complete success of the wireless conversion paradigm will require personalization as sharing conflicts with mobility.

The use of cell phones in the home has experienced significant organic growth, but significant obstacles other than price remain. Efforts to optimize handsets for mobility make them less than ideal for home use. The handset docking stations recently announced by WHP Wireless and Vox2 represent important elements in allowing the wireless conversion market to reach its full potential. The new docking stations provide external antennas to address typically poor reception in residential areas, as well as, growing concerns about the health implications of long term exposure to the electromagnetic radiation generated by the cell phone antenna. The docking stations also allow users to plug in and use regular telephones for placing and receiving calls.

The wireline companies will point out additional obstacles to wireless conversion, such as; reliability, E911, operator services, directory services, security, and quality of service. The capacity of wireless networks remains far less than traditional wireline networks. Ironically, these same issues were offered as reasons the cellular phones would never get commercialized in the first place. The incumbents will deploy lawyers to emphasize regulatory obstacles given differences between the regulatory treatment of wireline and wireless services. Customers may very well decide to maintain a single wired phone connection for Internet dialup, fax, or to preserve their existing telephone number for incoming calls (making telemarketers happy.) Wireline replacement appears mostly a home user phenomena due to the quality and reliability issue. Only a competitive wireline market could slow wireless conversion, but it seems unlikely the wireline incumbents can change their standard operating procedure fast enough.