

Introduction

[01] 10:05AM Wed, Jan 19, Hawes Hall 102

[02] 11:40AM Wed, Jan 19, Hawes Hall 102

TOPIC

Satellite Radio

UPDATE: At year-end 2004, XM and Sirius had 3.3 million and 1.1 million subscribers, respectively, substantially exceeding the projections in exhibits 7 & 8 of the case. XM was capturing about 49% of aftermarket sales in late 2004, and 78% of OEM sales, because Ford and DaimlerChrysler -- having renegotiated their warrant-based incentives -- were just starting to offer factory-installed Sirius radios. In Oct. 2004, Citicorp's analyst forecast 20 million total industry subscribers in 2007, much higher than Merrill's projection (made in Nov. 2003) of 12 million.

In late 2004, about 12% of new cars sold in the U.S. offered satellite radio as a factory-installed option; 50% of new cars were expected to offer the option by 2010. The OEM channel (activation of a factory-installed radio on a new car) accounted for about 40% of new subscriptions in late 2004; this figure was not expected to change over time. OEMs were activating about 60% of customers after a three-month free trial.

Sirius had negotiated a number of high profile, exclusive content deals during 2004. Sirius signed a \$500 million, 5-year exclusive deal with "shock jock" Howard Stern, whose syndicated radio show is currently heard by about 10 million terrestrial listeners daily. Sirius also paid \$220 million for rights to all NFL games for seven years. Finally, Sirius secured rights to National Hockey League games, some National Basketball Association (NBA) games, and many college sports events.

XM committed \$650 million for an 11-year contract for satellite radio rights for all Major League Baseball games. XM's other sports programming included NASCAR, some NBA games, and college events. XM also offered premium subscriptions (for an additional \$3 per month) to a Playboy Channel and to a program by shock jocks Opie & Anthony.

For both firms, 2004 losses were greater than the projections presented in the case. As of late 2004, XM was expected to earn FY 2004 revenue of \$245 million, EBITDA of \$(277) million, and EBIT of \$(470) million. FY 2004 revenue for Sirius was expected to be \$71 million and EBITDA and EBIT were forecast to be \$(477) million and \$(621) million, respectively.

Despite these losses, both firms had seen very strong stock appreciation in 2004. Each had a market cap in the range of \$7-8 billion as of early 2005.

ERRATA: The horizontal axes of the stock price history graphs in Ex. 11 are mislabelled. Both histories start in late 1999 and end in late 2003.

MATERIALS Satellite Radio (802175) [MNB Course Introduction](#)**ASSIGNMENT**

1. Are there network effects in the satellite radio business? If so, how do they influence strategy?
2. Would you invest in either Sirius or XM in mid-January 2005, with their stocks trading at around \$6 and \$36 respectively? Alternatively, would you short either stock? Assume you are an hedge fund manager with a well-diversified portfolio, a charter that allows you to invest in high growth, small cap stocks, and that you are evaluated on your fund's annual performance.
2. In late 2004, total marketing cost per gross subscriber added was \$140 for XM and \$400 for Sirius. Assuming churn of 20% per year, can the companies afford to spend so much on customer acquisition? Should they be spending more?
3. Would the development of interoperable satellite radios (i.e., radios that can receive signals from both Sirius and XM) be attractive for Sirius? For XM?
4. Did it make sense for Sirius to sign an exclusive deal with Howard Stern? Should XM have matched the offer?
5. Toyota and Nissan still haven't made an exclusive commitment to a satellite radio company. What should they do?
6. In addition to the interoperability agreement mentioned in the case, the FCC has imposed a "Joint Cooperation Agreement" on XM and Sirius, which prohibits exclusive content and retail distribution deals. Both companies have complied with the formal terms of the JCA in drafting contracts, but many of their partnerships are de facto exclusive. What is the FCC trying to accomplish with these agreements? If the two companies ever proposed a merger, should it be authorized by the FCC and antitrust authorities?


[01] 10:05AM Fri, Jan 21, Hawes Hall 102

[02] 11:40AM Fri, Jan 21, Hawes Hall 102


TOPIC

Adobe Systems Inc.

MATERIALS

 Adobe Systems Incorporated (801199)

 [Adobe lessons](#)

 [Adobe 2-sided pricing](#)

ASSIGNMENT

1. How was Postscript established as a de facto standard? How did Adobe make money from Postscript, despite its being an "open" standard?
2. Which firm is currently in a stronger position to control de facto standards in the eBook space: Adobe or Microsoft?
3. What should Adobe do? How can they win the standards war? Should they focus on eDocs or eBooks? Will the eBooks market tip or will there be multiple standards? How can Adobe make money in this market?

End of Introduction

The Nature of Networks


[01] 10:05AM Wed, Jan 26, Hawes Hall 102

[02] 11:40AM Wed, Jan 26, Hawes Hall 102

TOPIC

Federal Express: Early History & Teledesic

MATERIALS

 Federal Express: Early History (804095)

 Teledesic (Abridged) (804096)

 [Federal Express Analysis](#)

 [Hub and Spoke Economics](#)

 [Teledesic Analysis](#)

ASSIGNMENT

1. What is Federal Express's value proposition? How is it similar to and different from Teledesic's value proposition? How reliant is each firm on network effects?
2. What risks did Federal Express face in its launch phase? How do these risks compare to the challenges confronting Teledesic?
3. Assume you are a well-diversified institutional investor willing to accept high risk in exchange for potentially high returns over a five to ten-year horizon. Would you have invested in Teledesic in early 2000?
4. What annual revenue does Teledesic require to achieve breakeven? Given future market demand, Teledesic's capacity, and its likely competitive position, do you believe that Teledesic could reach this breakeven point?

[01] 10:05AM Thu, Jan 27, Hawes Hall 102

[02] 11:40AM Thu, Jan 27, Hawes Hall 102

TOPIC

Electronic Arts in Online Gaming

MATERIALS



Electronic Arts in Online Gaming (804140)

ASSIGNMENT

1. For regular console games (i.e., not online-enabled), analyze the economics of title exclusivity, i.e., an agreement that limits a game's availability to a single console. How much could a dominant console maker (i.e., PS2) afford to pay for exclusivity? How much could a console maker with a smaller installed base (i.e., Xbox or GameCube) afford to pay? What payments would game publishers require from large and small console makers in order to accept exclusivity?

For purposes of analysis, assume:

- a. A game costs \$6 million to produce, and \$1 million to port to each additional platform
- b. A publisher realizes a \$20 variable contribution margin on each unit sold (reflects \$40 wholesale price, less 10% IP licensing fee, 12.5% console royalty, 5% manufacturing cost, 12.5% royalty to studio, and 10% marketing cost; assume for convenience that all these expenses are 100% variable regardless of sales volume).
- c. If game is not exclusive, publisher expects to sell 500,000 units, with 75% share to PS2 and 12.5% share each to Xbox and GameCube.
- d. If offered on exclusive basis, extra "push" by console makers would result in 400,000 unit sales for PS2 or 100,000 units for either Xbox or GameCube

2. Will console-based online gaming emerge as a mass market phenomenon over the next five years? How important will network effects be in the competition between online game platform providers?

3. How important is EA to Microsoft's success in online gaming? How important is Microsoft to EA?

4. What are the advantages and disadvantages to the respective approaches adopted by Microsoft and Sony for managing relationships with third-party providers of online games? Why are the strategies so different? Is one strategy flawed?

5. Should either/both Microsoft and EA seek to end their dispute? If so, under what terms?

[01] 10:05AM Fri, Jan 28, Hawes Hall 102

[02] 11:40AM Fri, Jan 28, Hawes Hall 102

TOPIC

Google, Inc.

MATERIALS



Google, Inc. (804141)



[Betting on Google's Future \(Optional\)](#)



[What's Next for Google? \(Optional\)](#)

ASSIGNMENT

1. Is paid search a winner-take-all category? If so, who will win: Google or Overture?
2. Evaluate Google's strategy. Should they invest in marketing to drive more users to their destination website (Google.com)? Should they build Google.com into a fully-featured portal, competing directly with Yahoo! or MSN?
3. Evaluate Yahoo!'s strategy for search. Did the company's acquisition of Overture and Inktomi make sense? What other actions should Yahoo! take to strengthen its competitive position?
4. If you ran MSN, would you try to develop in-house capabilities to support paid search, or continue to outsource this business?

[01] 10:05AM Wed, Feb 2, Hawes Hall 102

[02] 11:40AM Wed, Feb 2, Hawes Hall 102

TOPIC

The Nasdaq Stock Market, Inc.

MATERIALS

 Nasdaq Stock Market, Inc., The (202008)

 [Liquidity network lecturette](#)

ASSIGNMENT

1. Who benefits from, and who -- if anyone -- is harmed by, increased liquidity in equity markets? If increased liquidity is attractive to some/all market participants, how can we explain the fact that Nasdaq's share of trading volume has been shrinking?
2. What is the business of Nasdaq Stock Market, Inc.? Who are its customers? How does it make money?
3. Why are ECNs garnering share? Exactly what threat do they pose to Nasdaq?
4. If you wanted to buy or sell shares in a Nasdaq listed stock, how would you do so? Assume you have access to all marketplaces where that stock currently trades.
5. What problem(s) does SuperMontage solve? Will it work?

End of The Nature of Networks

Platform Creation--Racing


[01] 10:05AM Thu, Feb 3, Hawes Hall 102


[02] 11:40AM Thu, Feb 3, Hawes Hall 102

TOPIC

DLJdirect: Putting our Reputation Online

MATERIALS

 DLJdirect: "Putting Our Reputation Online" (800164)

 A Note on Racing to Acquire Customers (803103)

EC Weeks 3 on Packet

 [Racing lecturette](#)

 [Tracking stock lecturette](#)

ASSIGNMENT

1. How would you evaluate DLJ, Inc.'s management of DLJdirect? In terms of organization and financial structure, what decisions were especially important in positioning DLJdirect for growth? Do you think the tracking stock was a good idea?
2. Should DLJdirect pursue the day trading market more aggressively? Should it broaden its target market to include mainstream investors?
3. DLJdirect plans to spend \$65 million on marketing in 1999. In your view, is this the right amount? How much should they spend in 2000? How much can DLJdirect afford to spend to attract each new customer?

End of Platform Creation--Racing

The Nature of Networks

[01] 10:05AM Wed, Feb 9, Hawes Hall 102

[02] 11:40AM Wed, Feb 9, Hawes Hall 102

TOPIC

Rakuten

MATERIALS

 Rakuten (305050)

 [Rakuten sales rep analysis](#)

ASSIGNMENT

Please note a typo on page one of the case. Revenue and operating profit are 18.1 and 4.8 billion yen, respectively, not 181 and 48 billion yen. The financials presented in Exhibit 3 are correct.

1. Has Rakuten done a good job of balancing the potentially conflicting priorities of shoppers and merchants, or is the mall's design skewed too much in favor of one side?
2. Consider potential sources of conflict between Rakuten and its merchants (e.g., over cross-marketing rights; priority placement on category home pages; etc.). How well has Rakuten managed these issues?
3. Was the switch to transaction-based pricing a smart move?
4. If you were a manager at Yahoo! Japan, how would you attack Rakuten's mall? Students may wish to visit the Shopping section of Yahoo!'s U.S. portal to better understand the tactics that Yahoo! Japan might employ.
5. Should Rakuten escalate its efforts in consumer-to-consumer auctions? If eBay proposed to reenter Japan through a joint venture with Rakuten, should Rakuten accept? If so, what terms should Rakuten negotiate?
6. What advice would you give Mikitani regarding expansion priorities? Should Rakuten seek to expand outside Japan? What product categories should it target?

End of The Nature of Networks

Platform Creation--Racing

[01] 10:05AM Thu, Feb 10, Hawes Hall 102

[02] 11:40AM Thu, Feb 10, Hawes Hall 102

TOPIC

Neopets, Inc.

MATERIALS

NeoPets, Inc. (802100)

ASSIGNMENT

1) As of mid-2001, do you consider NeoPets to be a successful company? Why or why not? Please be specific about the measures you consider relevant in gauging the company's performance.

2) Imagine that in July 2001, a financial investor expresses an interest in acquiring 100% of NeoPets, Inc.'s equity. Assume that all existing stock options previously issued to NeoPets employees would remain outstanding after a change of ownership, and that these options, if eventually exercised, would represent 20% of the company's total shares.

a) If you were the investor, what is the most you would pay for 100% of NeoPets, Inc.'s equity? Assume you represent a well-diversified private equity firm that specializes in early-stage investments, and that you are willing to accept high levels of risk in exchange for potentially high returns over a 3-5 year time horizon.

b) If you acquired NeoPets, how, if at all, would you change its strategy?

3) If you were Dohring, how would you proceed with the Green Dot negotiations?

4) As a consultant to Dohring, what international expansion strategy would you recommend? Specifically, what markets would you target, in what sequence, and how would you organize to serve these markets?

End of Platform Creation--Racing

The Nature of Networks

[01] 10:05AM Wed, Feb 16, Hawes Hall 102

[02] 11:40AM Wed, Feb 16, Hawes Hall 102

TOPIC

Lecture

MATERIALS

 [Lecture slides](#)

ASSIGNMENT

There's no reading assignment for this class. Use the slack in our schedule to finish the "Note on Racing to Acquire Customers" if you haven't already done so. Also, note that I've assigned a short book chapter ("Valuation Bubbles and Broadband Deployment") for Thursday in addition to the Qwest case. You might wish to get a head start on that reading.

I'll do some lecturing to reinforce course concepts, and we'll work case-by-case through the first nine class sessions to "stress test" our understanding of these concepts. I suggest you revisit earlier cases, and ask whether the businesses in question have winner-take-all structural attributes. Specifically:

- What type of network effect do they exhibit (connectivity, complement, liquidity)?
- How strong is the network effect? Is the platform proprietary or shared?
- Does the business exhibit increasing returns due to static scale economies?
- Are multi-homing costs high? Switching costs?

End of The Nature of Networks

Platform Creation--Racing

[01] 10:05AM Thu, Feb 17, Hawes Hall 102

[02] 11:40AM Thu, Feb 17, Hawes Hall 102

TOPIC

Qwest Communications

MATERIALS

 Qwest Communications International Inc. (802133)

EC Weeks 3 on Packet

 Valuation Bubbles and Broadband Deployment

EC Weeks 3 on Packet

 [Bubbles lecture](#)

ASSIGNMENT

1. Evaluate Qwest's strategic position in early 1999. What were the company's strengths? What risks did it face? Besides launching a hostile takeover bid for U S West, what were its strategic options? Would you have pursued any of these options instead?
2. Evaluate Qwest's decision to acquire U S West. Were the premises behind this decision sound? Do you agree with the strategic moves that Nacchio and his team made after the merger?
3. Assume that Nacchio believed his stock was overvalued in 1999. Would his best strategy under that scenario be the same as the strategy he should pursue if he believed that his stock was correctly valued?
4. Why did U S West pursue a deal with Global Crossing? Was that a smart move? What were its other options?
5. COO Mohebbi argues for vertical integration (i.e., a local/backbone merger), contending that the computer industry's horizontal structure does not apply in telecommunications. Do you agree?

[01] 10:05AM Thu, Feb 24, Hawes Hall 102

[02] 11:40AM Thu, Feb 24, Hawes Hall 102

TOPIC

Cox Communications, Inc.

MATERIALS

 Cox Communications, Inc. (804192)

 [Cox bundling and LVC analysis](#)

ASSIGNMENT

1. Should Cox: a) roll out both VoIP and DVRs at a measured pace (say, over a 3-4 year horizon); b) accelerate VoIP deployment, rolling out service to all systems not yet offered telephony over the next 18 months; c) accelerate DVR deployment, offering DVRs in all systems within 18 months; or d) accelerate both VoIP and DVR deployment? What are the risks and potential rewards with each option?
2. How much can Cox afford to spend on marketing to acquire a new telephony customer?
3. What are the advantages and disadvantages of bundled services from a consumer's perspective? From Cox's perspective?
4. How should SBC respond to Cox's strategy?

End of Platform Creation--Racing

Platform Creation--Sharing

[01] 10:05AM Fri, Feb 25, Hawes Hall 102

[02] 11:40AM Fri, Feb 25, Hawes Hall 102

TOPIC

Symbian: Setting the Mobility Standard

MATERIALS

 Symbian: Setting the Mobility Standard (804076)

ASSIGNMENT

1. Do you expect the market for smartphone operating systems to mirror the evolution of the PC operating software business? What similarities and differences do you see between these markets?
2. What strengths and weaknesses do Symbian, Microsoft, and Palm bring to the smartphone OS market?
3. Do you agree with Motorola's moves to develop relationships with other OS vendors?
4. What strategy should Microsoft employ in the smartphone OS market?
5. What should Symbian do with respect to:
 - a. Pricing
 - b. The decision to cede the enterprise market to Microsoft
 - c. Relationships with carriers
6. Should Symbian forward integrate into application development?
7. Would you invest in a Symbian IPO that priced the company at £500 million?


[01] 10:05AM Wed, Mar 2, Hawes Hall 102

[02] 11:40AM Wed, Mar 2, Hawes Hall 102

TOPIC

Atheros Communications

MATERIALS

 Atheros Communications (802073)

 [Atheros update](#)

ASSIGNMENT

1. How compelling is the 802.11a value proposition for enterprise customers? For the home networking market? What are the major barriers to adoption?
2. What are the principal strategic challenges facing the management team at Atheros? How would you respond to these challenges?
 - a. Do you agree with the decision to price the AR5000 chipset at parity with 802.11b products?
 - b. Would you invest resources in producing chipsets for "dual-radio" systems that employ both 802.11a and 802.11b standards?
 - c. Would you seek to influence the IEEE standards setting process to incorporate Atheros's proprietary 72 Mbps "Turbo" mode into the 802.11a standard?

[01] 10:05AM Wed, Mar 9, Hawes Hall 102

[02] 11:40AM Wed, Mar 9, Hawes Hall 102

TOPIC

Scientific-Atlanta, Inc.

MATERIALS

 Scientific-Atlanta, Inc. (804191)

 [SA Switching Costs](#)

ASSIGNMENT

1. Assess SA's position in early 2002 using "SWOT" analysis (strengths, weaknesses, opportunities, threats). In particular, does the transition to digital TV represent a threat or an opportunity for SA? What about rapid consumer adoption of digital media management solutions such as Media Center Edition PCs?
2. What are the switching costs confronting cable operators when they change set-top box vendors? How do switching costs compare with the \$200 average price of a digital converter?
3. Do you agree with Dr. Ecker's assertion that Project Harmony offers upside for SA? Would Motorola reach the same conclusion about Project Harmony? More generally, how would you respond to SA's strategic initiatives if you ran Motorola?
4. What do you recommend for SA with respect to the following decisions:
 - a. Should SA aggressively exploit overlay opportunities? If so, to what extent should SA subsidize switching costs incurred by a cable operator that implements an overlay?
 - b. Should SA increase its investment in the development of interactive TV applications? Should SA actively pursue an open architecture for its digital platform? Should they broadly license conditional access and "resident application" (S-ARA) technologies to consumer electronics and PC manufacturers?
 - c. Should SA steer an independent course, or pursue a strategic alliance with a company like Microsoft or Sony?

[01] 10:05AM Thu, Mar 10, Hawes Hall 102

[02] 11:40AM Thu, Mar 10, Hawes Hall 102

TOPIC

CD Audio/VCR

MATERIALS

 Bandwagon Effects in High-Technology Industries, Chapters 9 and 10

EC Weeks 3 on Packet

 The Art of Standards Wars

EC Weeks 3 on Packet

 Choosing How to Compete: Strategies and Tactics in Standardization

EC Weeks 3 on Packet

ASSIGNMENT

In addition to the book chapters on VCR and CD audio standards, you should read either the Shapiro & Varian article (which is more practical and example-based) or the Besen & Farrell article (which offers frameworks and insights based on the microeconomics of standards battles). If you have time and interest, you should read both articles. They offer complementary perspectives, and overlap only to a modest extent.

From the perspective of Sony and JVC for VCRs in 1975, and Philips and Sony for CD audio in 1979 (i.e., before these firms decided whether to cooperate or compete with their principal rival in developing the technology in question), assess:

1. The odds that the technology would eventually be dominated by a single standard
2. The likely payoff from a standards battle, versus the payoff from jointly establishing a single standard


[01] 10:05AM Wed, Mar 23, Hawes Hall 102

[02] 11:40AM Wed, Mar 23, Hawes Hall 102

TOPIC

IBM & Linux

MATERIALS

 [IBM and Linux \(A\) \(903083\)](#)

 [IBM & Linux \(A\)](#)

Please note that this case is also available electronically as part of the PDF material pilot

 [Windows Refund Day](#)

 [The Microsoft Memo \(Optional\)](#)

 [IBM ad](#)

 [IBM-Linux update](#)

ASSIGNMENT

1. Does Linux exhibit network effects? If so, using our taxonomy (i.e., connectivity, complement, liquidity), how can they be characterized?
2. What is "open" about open source software? The Windows operating system is open in the sense that application programming interfaces are well documented and anyone -- without paying a fee -- can create a Windows-compatible application. Exactly how is Linux OS different from Windows?
3. How do the processes for upgrading Windows and Linux differ?
4. What are the risks and potential benefits for IBM of the various options listed at the end of the case for dealing with the Linux Development Community (LDC)? Which option would you recommend?
5. If IBM pursues an alliance with LDC, what terms should it seek? What resources should it offer? What changes, if any, should IBM seek in the LDC's intellectual property policies or its governance processes? If LDC accepts IBM's proposal, how should IBM communicate its plans internally and externally?
6. What are the risks to LDC in working with IBM? What, if anything, can Torvalds and his colleagues do to address these risks?
7. What milestones and criteria should each side use for measuring the success of a potential alliance? Is it possible that an alliance could be successful for one party but not the other?

[01] 10:05AM Thu, Mar 24, Hawes Hall 102

[02] 11:40AM Thu, Mar 24, Hawes Hall 102

TOPIC

Sun: Web Services

MATERIALS

 Sun Microsystems, Inc.: Web Services Strategy (805095)

Spangler distribution

 [Joel West, "How Open is Open Enough? Melding Proprietary and Open Source Platform Strategies" \(Optional\)](#)

 [Standards lecture](#)

ASSIGNMENT

1. Do Web services exhibit network effects?
2. What types of companies are most likely to deploy Web services, and for what types of applications? What are the main barriers to deployment?
3. Evaluate the strategies of Sun, Microsoft, and IBM for exploiting Web services? Whose strategy is most likely to succeed, and why?
4. Relative to Microsoft's strategy for .NET, what are the advantages and disadvantages of the shared platform approach employed the Java camp (i.e., many companies simultaneously competing using the same technology, but cooperating to advance that technology)? Does the Java camp have a clear leader? Does it need one?
5. If you were at HP, BEA, or Oracle, would you embrace the "higher level" standards for Web services (for security, reliability, and business process flows) jointly developed by IBM and Microsoft, or would you back competing proposals, perhaps in concert with Sun?
6. What is the role of the Web Services Interoperability Organization (WS-I)? Is WS-I likely to be influential?
7. What should Sun do about WS-I: join as a contributing member? Hold out for a board seat? Avoid WS-I altogether? For each option, what types of actions should Sun managers pursue next?

Please note an error on Page 6, Paragraph 3, which reads: "J2EE competed with platform specific operating systems such as Microsoft Windows and UNIX."

J2EE is a programming platform used to create applications, and it does not compete directly with operating systems. Rather, J2EE applications run on "Java Virtual Machine" (JVM) middleware, used to process Java code. JVMs sits

between the application and an O/S, and had been built for all major O/Ss. However, the J2EE programming platform does compete with the .NET programming platform on Windows.

Thanks to Evan Mamas for pointing out this error.

End of Platform Creation--Sharing

Government Policy

[01] 10:05AM Thu, Mar 31, Hawes Hall 102

[02] 11:40AM Thu, Mar 31, Hawes Hall 102

TOPIC

High-Definition TV: The Grand Alliance

MATERIALS

 High-Definition TV: The Grand Alliance (804103)

 [Criteria for evaluating public policy outcomes and processes](#)

ASSIGNMENT

1. Assess the U.S. government policy for managing the transition to digital TV.
 - a. Compare the relative effectiveness of policies employed in the U.S., Japan, and Europe. Be specific about the criteria you use in evaluating processes and outcomes.
 - b. If you were a benevolent dictator interested only in the welfare of your society, how would you approach the problem of setting HDTV standards?
2. Who are the stakeholders in the transition to digital TV in the U.S.? What are their interests?
3. As FCC Chairman in 1996, how would you approach the five decisions described at the end of the case?
 - a. Should the FCC force an agreement on progressive vs. interlaced scanning?
 - b. Should the FCC allow broadcasters to use the additional spectrum set aside for HDTV for datacasting and/or multicasting?
 - c. Should the FCC support Senator Dole's proposal for either auctioning or levying fees on broadcast spectrum?
 - d. Should the FCC take a firm or flexible approach to transition deadlines?
 - e. Should the FCC mandate use of the Grand Alliance's standard, or simply authorize its use (thus leaving open the

possibility of other, better FCC-authorized standards in the future)?

[01] 10:05AM Fri, Apr 1, Hawes Hall 102

[02] 11:40AM Fri, Apr 1, Hawes Hall 102

TOPIC

Fuel Cells: The Hydrogen Revolution?

MATERIALS

 [Fuel Cells: The Hydrogen Revolution? \(804144\)](#)

 [Fuel Cells: The Hydrogen Revolution](#)

As part of the MNB PDF pilot, this case is available electronically in addition to the hard copy in your weeks 3-on case packet.

 [fuel quote](#)

 [Proposed federal spending plan for hydrogen economy](#)

 ["How Hydrogen Can Save America" Wired, April 2003 \(Optional\)](#)

ASSIGNMENT

1. What are the barriers to the adoption of fuel cell-based transportation in the U.S.?
2. Do the nature of these barriers and the potential benefits from a hydrogen economy warrant extensive government intervention?
3. If your answer to #2 is "yes," how and where would you intervene? Would you subsidize R&D and/or infrastructure deployment? Mandate the deployment of technologies against fixed deadlines?
4. Based on this case and our class session on HDTV, can you generalize about the conditions under which:
 - a) Government intervention in networked industries is justified?
 - b) Various policy tools (e.g., auctions, govt.-supervised standards competitions, "annointing" a champion and orchestrating a consortium, etc.) are most likely to be effective?
 - c) Managers will have significant degrees of freedom in their efforts to influence public policy?

[01] 10:05AM Wed, Apr 6, Hawes Hall 102

[02] 11:40AM Wed, Apr 6, Hawes Hall 102

TOPIC

Blackout: August 14, 2003

MATERIALS

 [Blackout: August 14, 2003 \(804156\)](#)

 [Blackout: August 14, 2003](#)

As part of the MNB PDF pilot, this case is available electronically in addition to the hard copy in your weeks 3-on case packet.

 [cartoon1](#)

 [cartoon2](#)

 [Prices: A long-term decline](#)

ASSIGNMENT

1. What factors contributed to the blackout?
2. Why did the U.S. government deregulate the electric power industry? Evaluate deregulation initiatives between 1978 and August 2003. What lessons can we draw about deregulation from the California energy crisis?
3. Do you see any network effects in this case?
4. Which of the proposed solutions for fixing the problems that caused the blackout seem most likely to be effective? Most politically feasible?
5. What similarities and differences do you see between the Internet and the electric power system? What does this imply about the appropriate role for the government in regulating the development and operation of the Internet?

[01] 10:05AM Thu, Apr 7, Hawes Hall 102

[02] 11:40AM Thu, Apr 7, Hawes Hall 102

TOPIC

Telecommunications Act of 1996

MATERIALS

 [Telecommunications Act of 1996, The \(802144\)](#)

 [Telecommunications Act of 1996](#)

As part of the MNB PDF pilot, this case is now available electronically in addition to the hard copy in your weeks 3-on case packet.

 [Govt. Policy Lecture](#)

 [Ouija Board](#)

 [April 6/7 Telecom Headlines](#)

ASSIGNMENT

1. What were the stakes and objectives for the different parties (i.e., industry participants, their customers, and government representatives) who were concerned with U.S. telecommunications legislation in the mid-1990s?
2. Should we be surprised that a critical mass of interested parties reached agreement on new legislation in 1996? What factors led to this agreement? Evaluate the process for reaching agreement, using the criteria we developed earlier in this module (HDTV and Fuel Cell cases).
3. Assess the impact of the Telecommunications Act of 1996 from the perspective of the various parties you identified in #1 above, and from the perspective of society at large. As of 2002, when the case ends, who were the winners and losers? Could these outcomes have been predicted in 1996?
4. What changes would you have imposed on the U.S. telecommunications industry in 1996, if you were a benevolent dictator?

[01] 10:05AM Fri, Apr 8, Hawes Hall 102

[02] 11:40AM Fri, Apr 8, Hawes Hall 102

TOPIC

Reed Hundt Session

MATERIALS



[Broadband: The Business Case for Universal Service](#)



["Telecom Shootout," Wall Street Journal, Feb. 22, 2005](#)



["Don't Create a Duopoly," Wall Street Journal, Feb. 28, 2005 \(Optional\)](#)



[April 6/7 headlines \(Optional\)](#)

Skim this to get a feel for the velocity of trends in the telecom sector.

ASSIGNMENT

1. What determines the retail pricing of broadband access?
2. What are the economic and social policy goals of the United States with respect to broadband?
3. How do the answers to the first two questions relate to each other?
4. Please be prepared to engage in a stakeholder analysis of the U.S. broadband deployment challenge. Stakeholders include providers of broadband infrastructure and services, residential and business customers for such services, and government actors. From each player's perspective, what is the preferred answer to question number two above? Are various players' preferences consistent with the goals of society at large? Are any differences irreconcilable?

End of Government Policy

Platform Evolution

[01] 10:05AM Wed, Apr 13, Hawes Hall 102

[02] 11:40AM Wed, Apr 13, Hawes Hall 102

TOPIC

Akamai Technologies

MATERIALS

Akamai Technologies (804158)

ASSIGNMENT

1. What explains Akamai's success through 2000, when its market share was 72%? Was the content delivery network business a winner-take-all category?
2. What challenges did Akamai face in launching EdgeSuite?
3. As EdgeComputing is rolled out, should Akamai continue to follow a platform-agnostic approach with respect to the many enterprise software companies offering web services? Alternatively, should Akamai ally closely and exclusively with either IBM or Microsoft?

End of Platform Evolution

Government Policy

[01] 10:05AM Thu, Apr 14, Hawes Hall 102

[02] 11:40AM Thu, Apr 14, Hawes Hall 102

TOPIC

eAccess

ASSIGNMENT

1. Why has eAccess's wholesale model been successful to date? Do you expect continued success as the DSL market matures? Was eAccess's acquisition of AOL Japan a good idea?
2. Dr. Semmoto says, "Without the Softbank shock we might not exist today." Is Softbank a "good" rival in the DSL market, or would eAccess be better off if Softbank had never entered? How would Softbank's entry into mobile communications impact the attractiveness of eAccess's plans for that market?
3. Evaluate the policies of the Japanese government for fixed-line broadband and mobile communications. What are the major differences between the policies employed in Japan and the U.S.? Which country's policies seem more likely to maximize social welfare? Would you predict any significant changes in the regulation of Fiber-to-the-Home (FTTH) in Japan over the next several years?
4. Is eAccess management wise to pursue a "go slow/wait and see" approach to FTTH? Should management invest more effort in lobbying for favorable FTTH regulation?
5. Should eAccess pursue opportunities in mobile communications? What are the risks? What are the key factors for success in entering the mobile market?

End of Government Policy

Platform Evolution

[01] 10:05AM Thu, Apr 21, Hawes Hall 102

[02] 11:40AM Thu, Apr 21, Hawes Hall 102

TOPIC

Yahoo! Messenger: Network Integration

MATERIALS

 [Integrate Games + Messenger](#)

ASSIGNMENT

1. Do our course frameworks explain why the IM market has not exhibited winner-take-all properties? Looking forward, should the three main IM rivals continue to avoid interoperability?
2. Yahoo emphasizes network integration; Google does not. Is one firm wrong, or are both strategies viable?
3. What are the main barriers to implementing a strategy built around network integration? Given these barriers, which of the steps Yahoo has pursued to facilitate integration (related to organizational structure, processes, systems, culture, etc.) have been most important?
4. How would you calculate the economic benefit to Yahoo of integrating one property with another (e.g., Games into Messenger)? What data would you need for this calculation? Is such data likely to be available before you make the decision to integrate?
5. What should the priorities be for the next release of Yahoo Messenger?

[01] 10:05AM Fri, Apr 22, Hawes Hall 102

[02] 11:40AM Fri, Apr 22, Hawes Hall 102

TOPIC

NTT DoCoMo, Inc.: Mobile FeliCa

ASSIGNMENT

1. How successful do you predict mobile FeliCa will be for DoCoMo? What will be the major sources of profit for DoCoMo from FeliCa? What are the major barriers to adoption for mobile FeliCa, and what steps should DoCoMo take to address them?
2. Is DoCoMo wise to offer its existing mobile phone rivals access to FeliCa? Do you agree with Mr Nakamura's decision to make FeliCa available to Softbank, if Softbank secures a mobile license?
3. As a de facto monopoly, how should FeliCa Networks price its technology and services, now and in the future?
4. What strategy should DoCoMo pursue in eMoney? In credit cards?
5. Compare and contrast i-mode and mobile FeliCa in terms of the challenge of mobilizing and exploiting a new network.

[01] 10:05AM Wed, Apr 27, Hawes Hall 102

[02] 11:40AM Wed, Apr 27, Hawes Hall 102

TOPIC

Monster Networking

ASSIGNMENT

1. What were Monster's strategic objectives in launching Networking? Were these objectives mutually consistent?
2. In planning for Monster Networking's launch, would you have shifted the relative emphasis give to any objectives and recommended any changes in: a) product design; b) marketing; or c) the new product development process?
3. More specifically, should Monster Networking have followed the social networking logic employed by startups such as Friendster and LinkedIn (i.e., motivating users to recruit their friends/professional acquaintances; allowing users to search a certain number of degrees beyond their own contacts)?
4. Do you agree with Taylor's statement in the last paragraph of the case, i.e., "We would have been more successful in networking if we had made an acquisition."?
5. Which of the four options outlined in the last section of the case would you recommend?
6. Compare and contrast Yahoo's management of the Messenger relaunch with Monster's management of the Networking launch.

[01] 10:05AM Thu, Apr 28, Hawes Hall 102

[02] 11:40AM Thu, Apr 28, Hawes Hall 102

TOPIC

RealNetworks Rhapsody

MATERIALS



RealNetworks Rhapsody (804142)



[Article on 4/26/05 Rhapsody relaunch](#)

ASSIGNMENT

1. What are the barriers to mass market acceptance of subscription-based online music services? What steps should Real take to address these barriers?
2. Is online music a "winners-take-most" category? What are the key factors for success in this category? Is Real well positioned for success? What can Real do to improve its odds for success?
3. Should Real race to acquire customers for its Rhapsody service? If you feel racing is appropriate, what channel partners would receive priority for your marketing efforts? Would you discount aggressively (e.g., by offering a 60-day free trial plus ten free downloads)? Would you spend \$20 million on a media advertising campaign (assume that level of spending would achieve high levels of awareness among 15- to 30-year olds)?
4. How important is Real's media player to its prospects for success in online music. Assume that the company's annual R&D budget for 2004 will match the \$47 million spent in 2003, and that most of the 2004 budget will be devoted to developing the next generation player. Would you cede the next generation to Microsoft, and make RealPlayer 10 the last release of this software?
5. Evaluate Apple's music strategy. Does the "closed/proprietary platform" approach (i.e., iTunes only works with iPod, and vice versa) make sense?
6. Evaluate the collective response of the major music companies to online threats and opportunities. Do you believe the strategic decisions made by the major labels are likely to maximize long term shareholder value?

End of Platform Evolution

[01] 10:05AM Fri, Apr 29, Hawes Hall 102

[02] 11:40AM Fri, Apr 29, Hawes Hall 102

TOPIC

Wrap up

MATERIALS

 [Course Wrap Up](#)

 [Industry trends](#)

Final Exam

[01] 3:00PM Fri, Apr 29, Hawes Hall 102

[02] 3:00PM Fri, Apr 29, Hawes Hall 102

TOPIC

Self-Administered Electronic Final Exam

Download available after 3:00 PM on Friday, April 29

Students have 4 hours to work on your exam response, and must upload final completed exam within 5 hours of the download.

All uploads must be completed by 4:00 PM on Monday, May 9.

MATERIALS

 [MNB Exam Guidelines](#)

 [MNB Exam Template](#)

ASSIGNMENT

Exam will be available for download after 3:00 PM on Friday, April 29 from <http://exam.hbs.edu>

End of Final Exam