



# Where Are We Up To?

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GLOCOM, IUJ

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# Telecom's Present Situation

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- US: Utter Crisis

  - FCC's En Banc Conference

- Japan: More resilient than others
  - Low interest rate, decreased capex

The telephone industry in the U.S. is in a state of "utter crisis" (Michael Powell, Chairman, U.S. Federal Communications Commission).

The collapse of the industry would be "probably the largest single meltdown in a defined industry" (L. William Seidman, former chairman, U.S. Federal Deposit Insurance Corporation).



# Fundamental Cause: Industrial Transition Due To Technological Changes

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## Open Letter To Chairman Powell

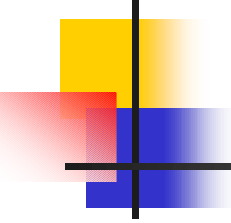
- The telecom debacle is not a cyclical phenomenon. The telephone network's technological base, and the business model under which this old technology thrived, are obsolete. Recovery is not an option.
- The primary cause of current telecom troubles is that Internet-based end-to-end data networking has subsumed (and will subsume) the value that was formerly embodied in other communications networks. This, in turn, is causing the immediate obsolescence of the vertically integrated, circuit-based telephony industry of 127 years vintage.
- Weak last-mile competition prevents the most powerful technological advances from reaching all but a few customers; this is the largest cause of long-haul over-capacity.



# Internet's Homology To Automobile

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- Part of infrastructure and platform purchased at one's own expense
  - Fiber, metal, wireless LAN
  - Network devices
- Most contents are self-produced and shared
- Part outsourced: applications and support services



# But We Face the “Paradox Of The Best Network”

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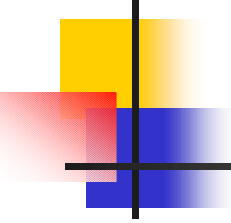
- The best network is the hardest one to make money running. (Isenberg and Weinberger)
- Communications networks have a more important job than generating return on investment — their value comes from their connectivity and from the services they enable. Therefore, the best network delivers bits in the largest volumes at the fastest speeds. In addition, the best network is the most open to new communications services; it closes off the fewest futures and elicits the most innovation.



# Its Implications

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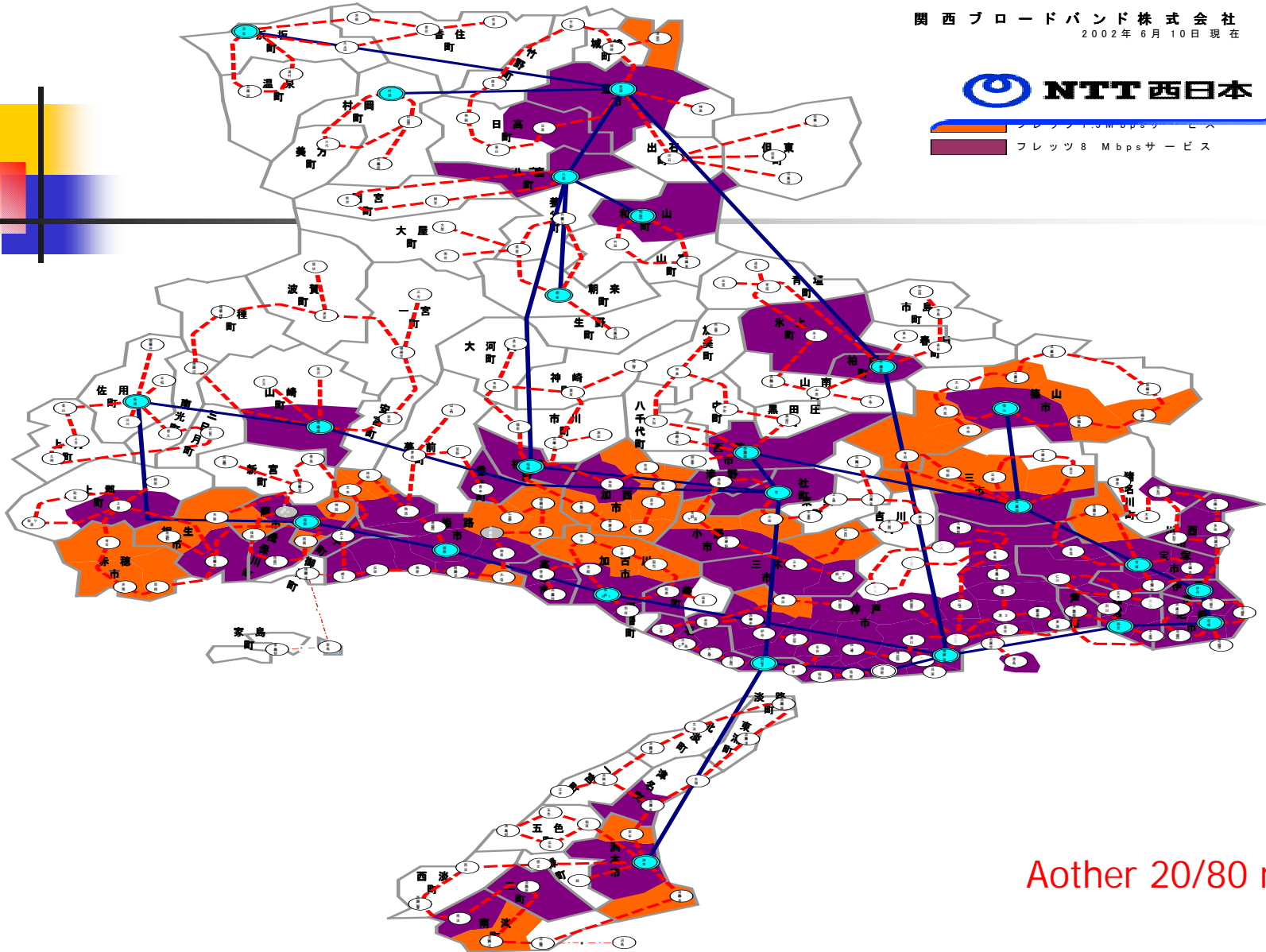
- Connection service to the backbone is commoditized
- Most costs come from own network management and content production
  - →reduce the cost and make them easy to use
  - →count on wireless LAN
  - →possibility of new support businesses
- A probable alternative: Subway or New Truck Line model
  - Intelligent and managed networks for densely populated areas?



## A New Challenge: Invention of a new operation model, not a business model

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- Neither market nor government is sufficient as a sole solution
- Rather, we need a new operation model that complement both market and government
  - Collaborative models between municipalities, firms, and civil society (netizens)



Aother 20/80 rule?





# Wireless is the key

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- We are living in a world where demand for spectrum is driven by an explosion of wireless technology and the ever-increasing popularity of wireless services. Michael K. Powell

# Wireless LAN Networks in Nankoku City

榎田町は全町フリーネット



<http://www.csi.ad.jp/wg/pub/>

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# Wireless' Remarkable Potentials

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- Enter Wireless LAN: A low-cost alternative
  - Rapid innovation and evolution taking place
- 3 major areas of application:
  - Rural districts
  - Condos and offices
  - Mobile wireless: Ad hoc + fixed APs + cellular
- These are today's main topics to be discussed