

Client Private

Japan with Advanced Network Infrastructure, U.S. with Advanced Applications

12th German-Japanese Symposium

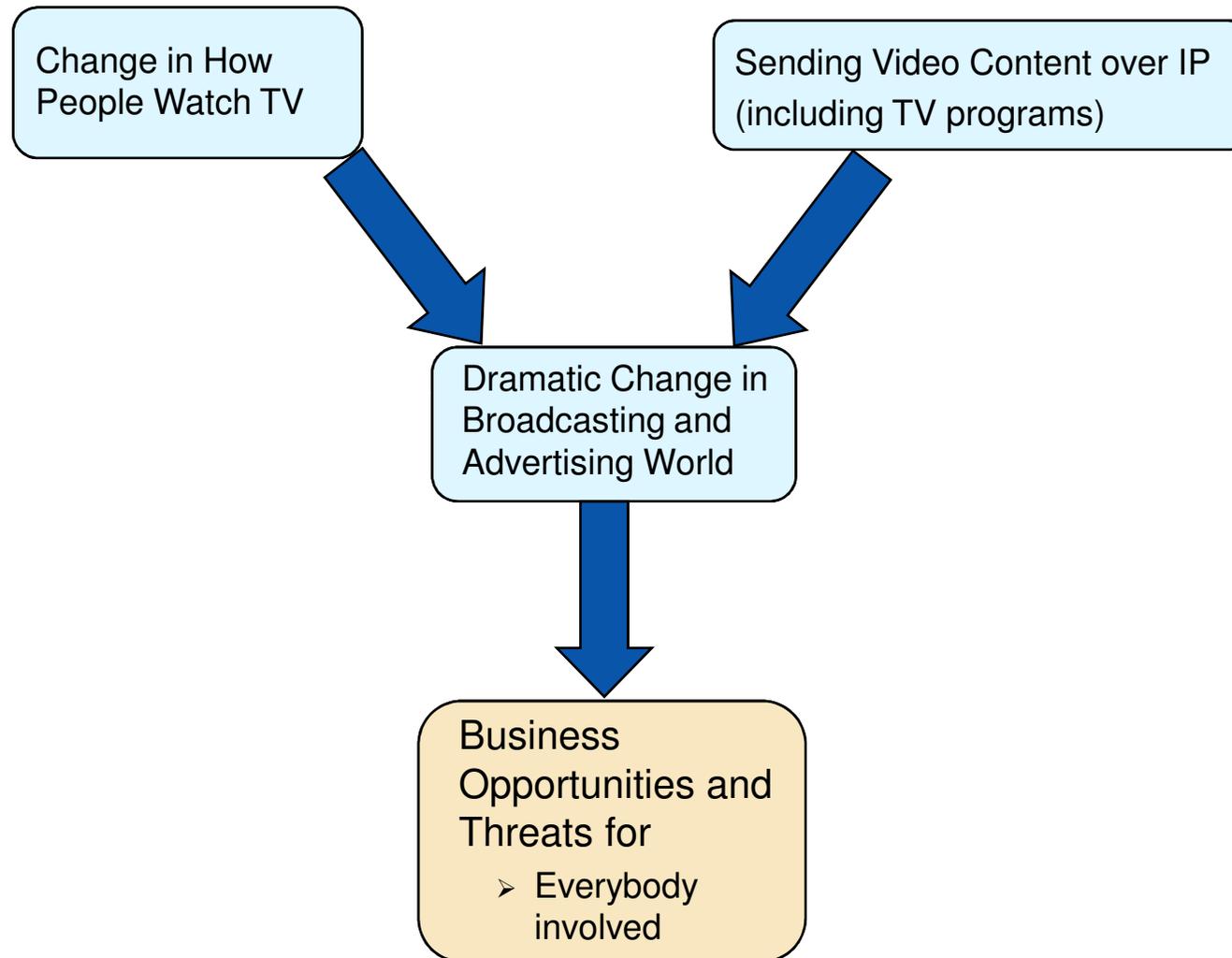
Berlin, Germany

April 20, 2007

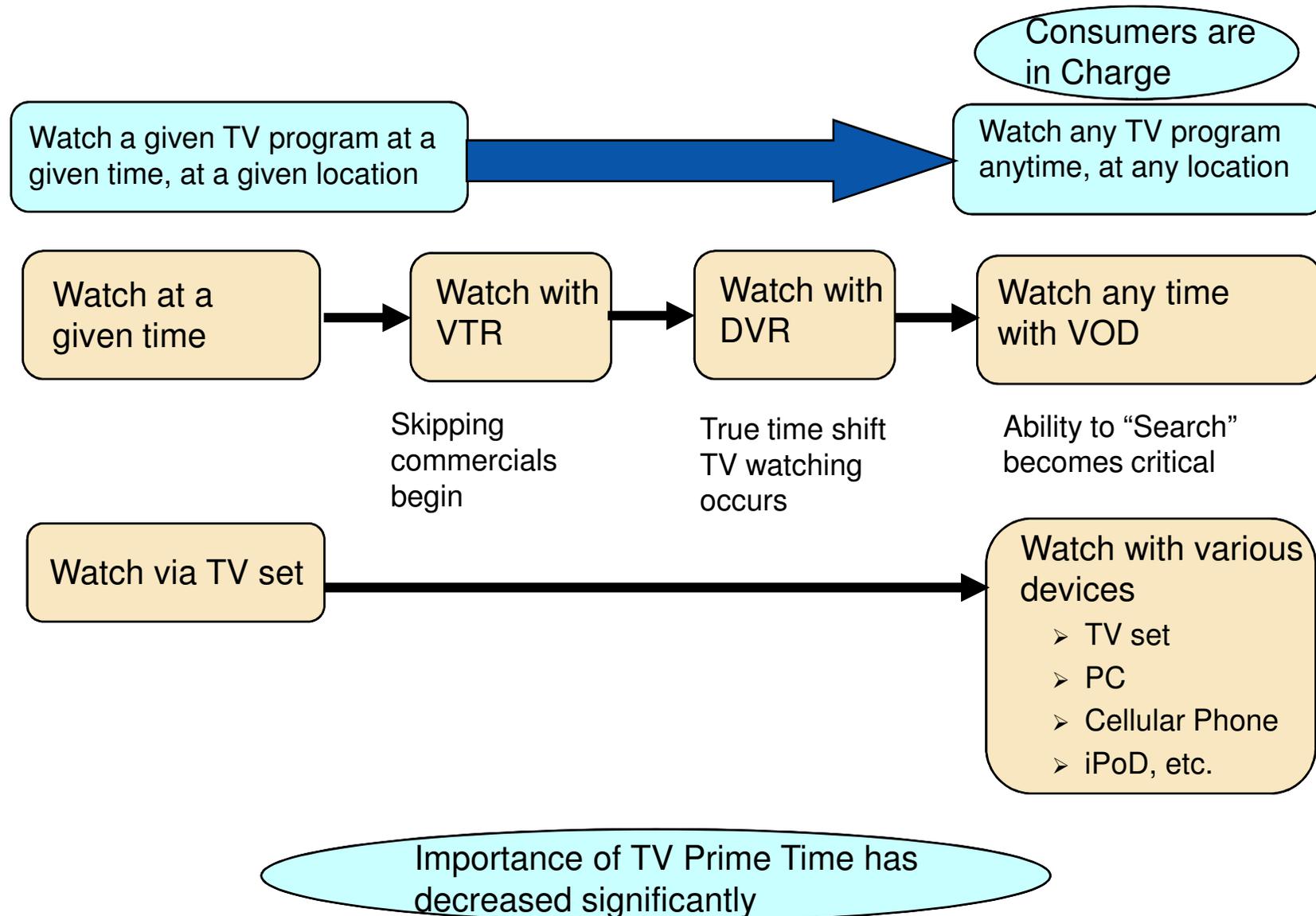
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Cardinal

Broadcasting and Internet Convergence



How People Watch TV has Changed Dramatically



Broadcasting and the Internet

◆ Video Download vs. Streaming Video (VOD) vs. IPTV

Video Download

- High quality video can be delivered via not so high speed network
- Users need to wait for the download
- Commercials can be skipped
- No interactivity

Not convenient but will exist, primarily pay per view

Video Streaming (VOD)

- Requires high speed network
- Users can watch like TV (realtime)
- Commercials cannot be skipped
- Initially with short video clips
- Now with more TV programs and movies
- Interactivity is possible

This is the future

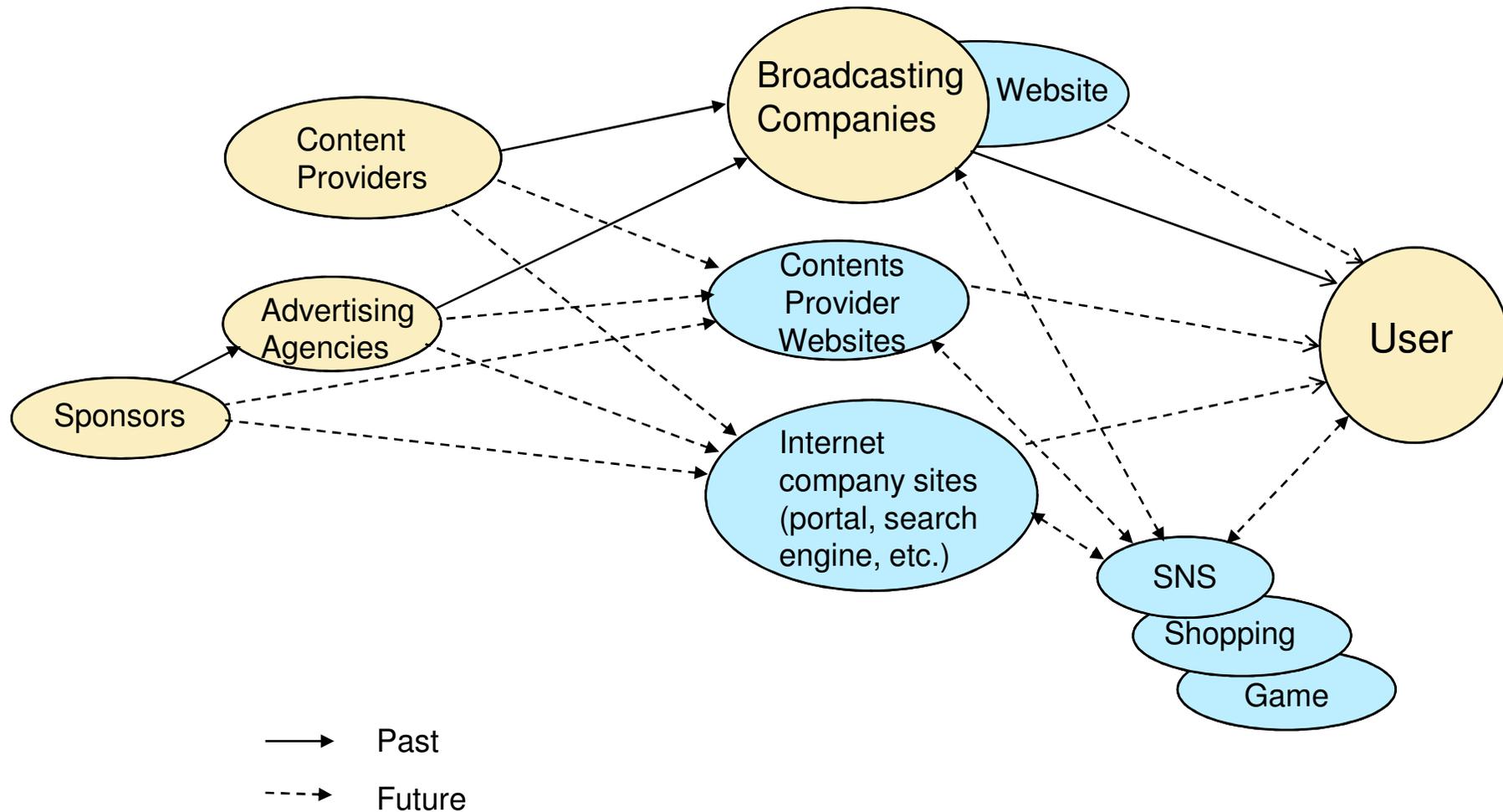
IPTV

- Requires high speed network
- Users can watch like TV (realtime)
- Not much different from Cable TV
- Interactivity is possible

Eventually be merged with VoD

Change in Broadcasting – Past and Future

- ◆ Integration of Broadcasting and the Internet is making a drastic change in the industry



Opportunities and Threats to Broadcasting Companies

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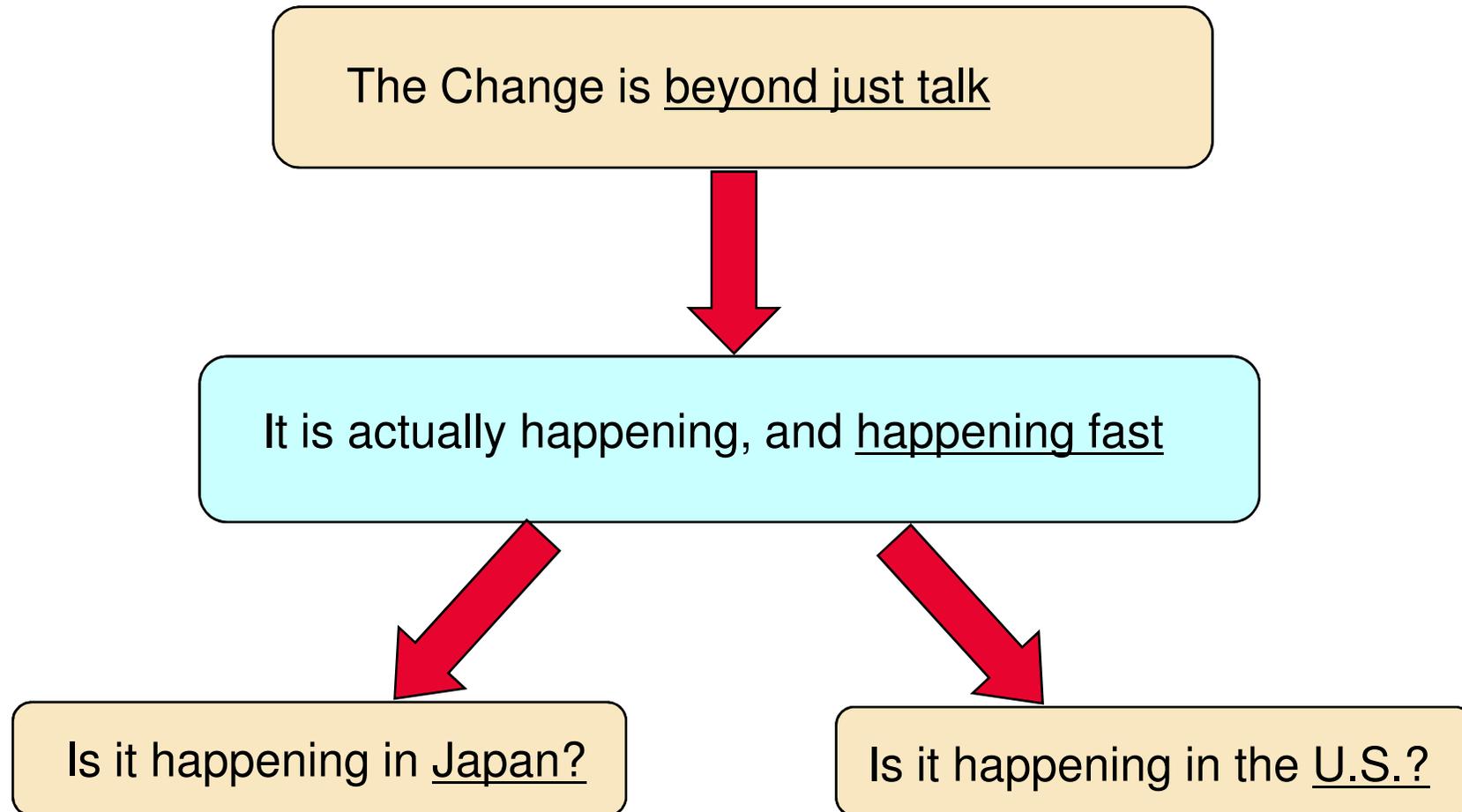
New Business Opportunities

- ◆ Opportunities to maximize use of the content owned
 - New distribution channels
 - ✓ IPTV,VoD,Video downloads
 - New terminal equipment
 - ✓ PC,Cellular phone, iPod, etc.
 - New area coverage
 - ✓ Non-covered area, Global
- ◆ Improve the value of the content owned
 - Video browsing
 - Personalization

Threats to Existing Business

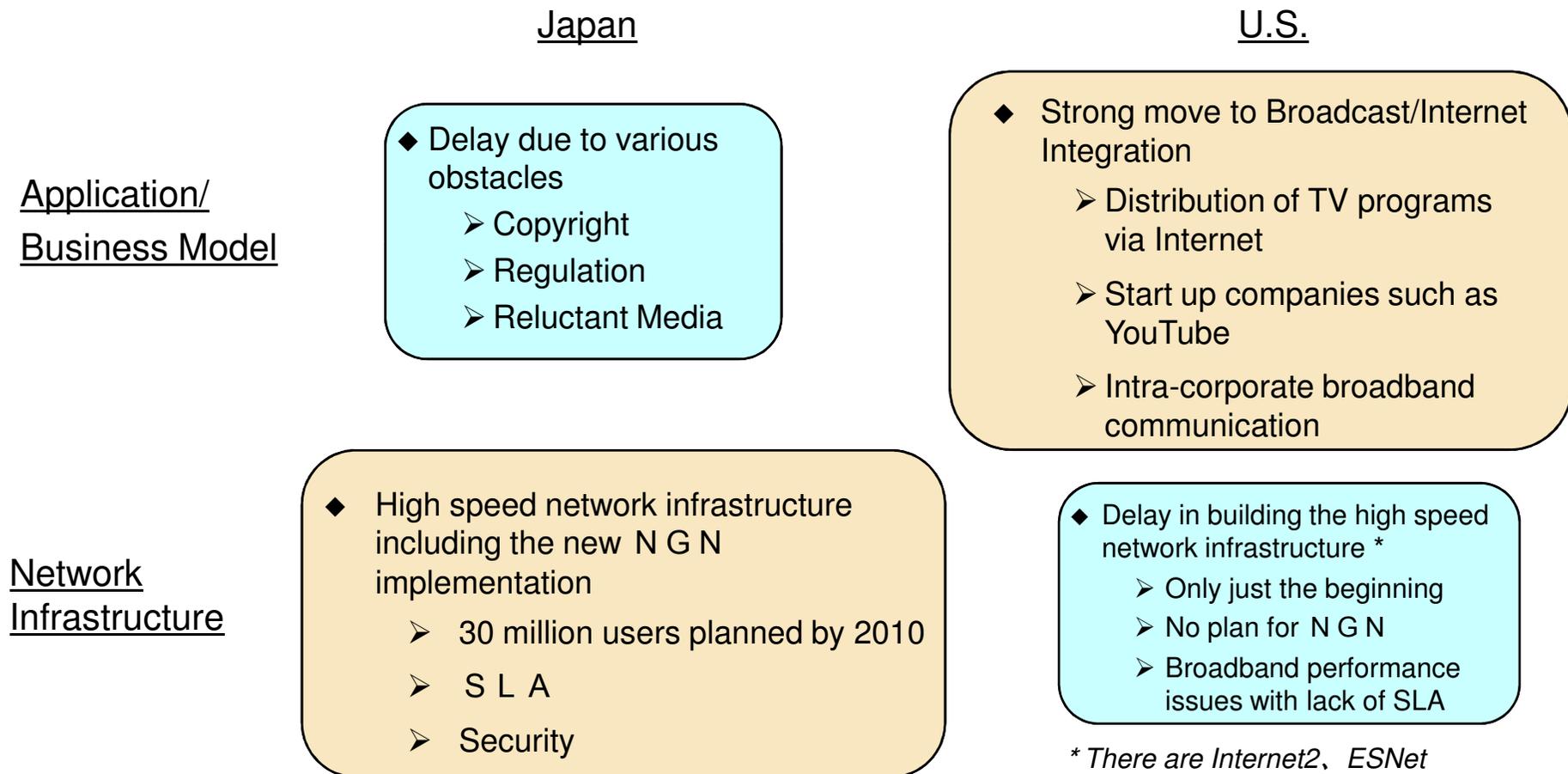
- ◆ Decrease in advertising revenue
 - Sponsors shifting their advertising budget to the Internet
 - Value of prime time decreasing
- ◆ Potential elimination as middleman
 - Third party Content developers distributing their contents via the Internet
- ◆ People are spending more time on the Internet than watching TV

The Change is Happening Fast



Comparison of Japan – U.S. in Broadband Internet Communication

- ◆ Although Japan is more advanced in broadband network infrastructure, U.S. is more advanced in broadband applications and business models

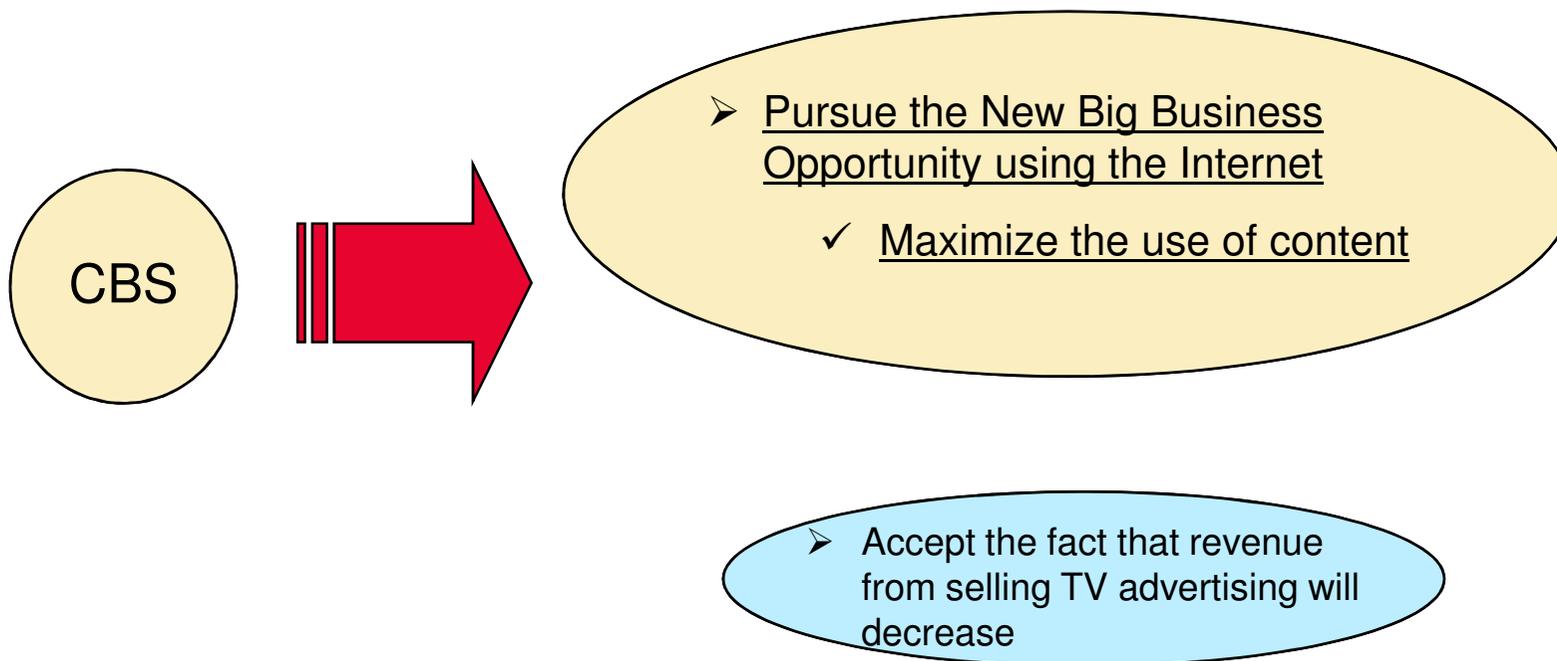


* There are Internet2, ESNNet that are for special purposes

U.S. Broadcasting Companies are Aggressive – 9

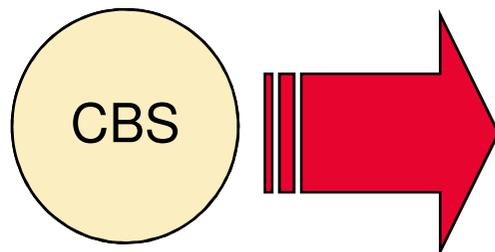
CBS Case

- ◆ CBS says, “We get it!”
- ◆ CBS will “Be in front and lead the parade”



U.S. Broadcasting Companies are Aggressive – CBS Case

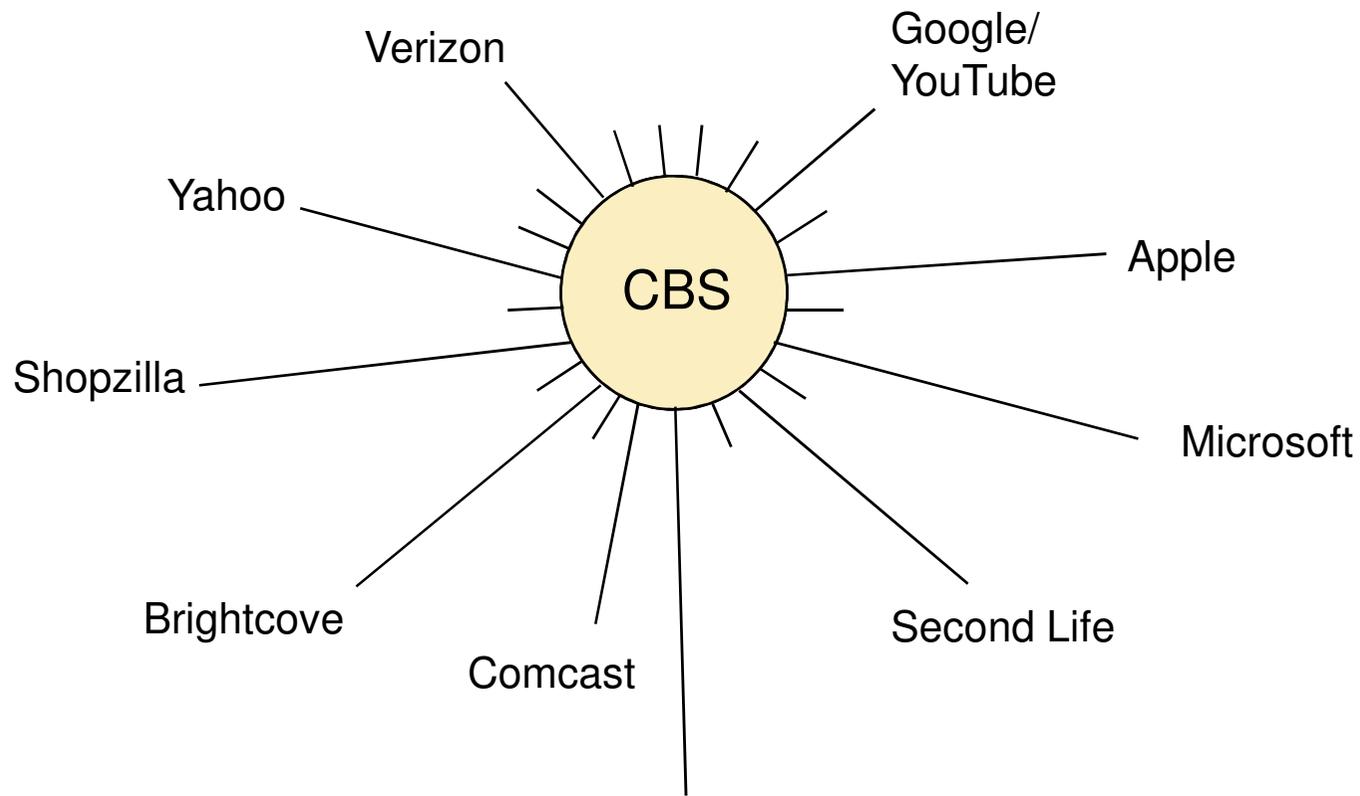
◆ CBS is trying to maximize the use of their content



- Regular TV (Terrestrial)
- Cable TV
- Satellite TV
- Broadcast distribution to Cellular Phones
- CBS Website
- TV Program Website
- Video Portal Site
- Web Portal Site
- Video Search Site
- Forwarding of TV programs by individuals
- +
- SNS
- Shopping
- Game
- etc.

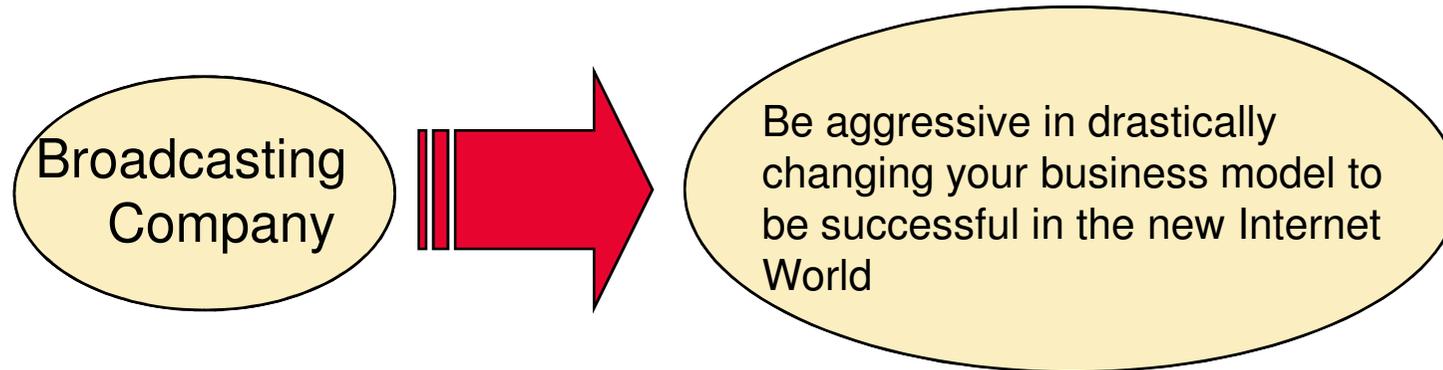
U.S. Broadcasting Companies are Aggressive – CBS Case

- ◆ CBS has more than 60 partnership to implement its Internet strategy



Consumers are also Partners!!

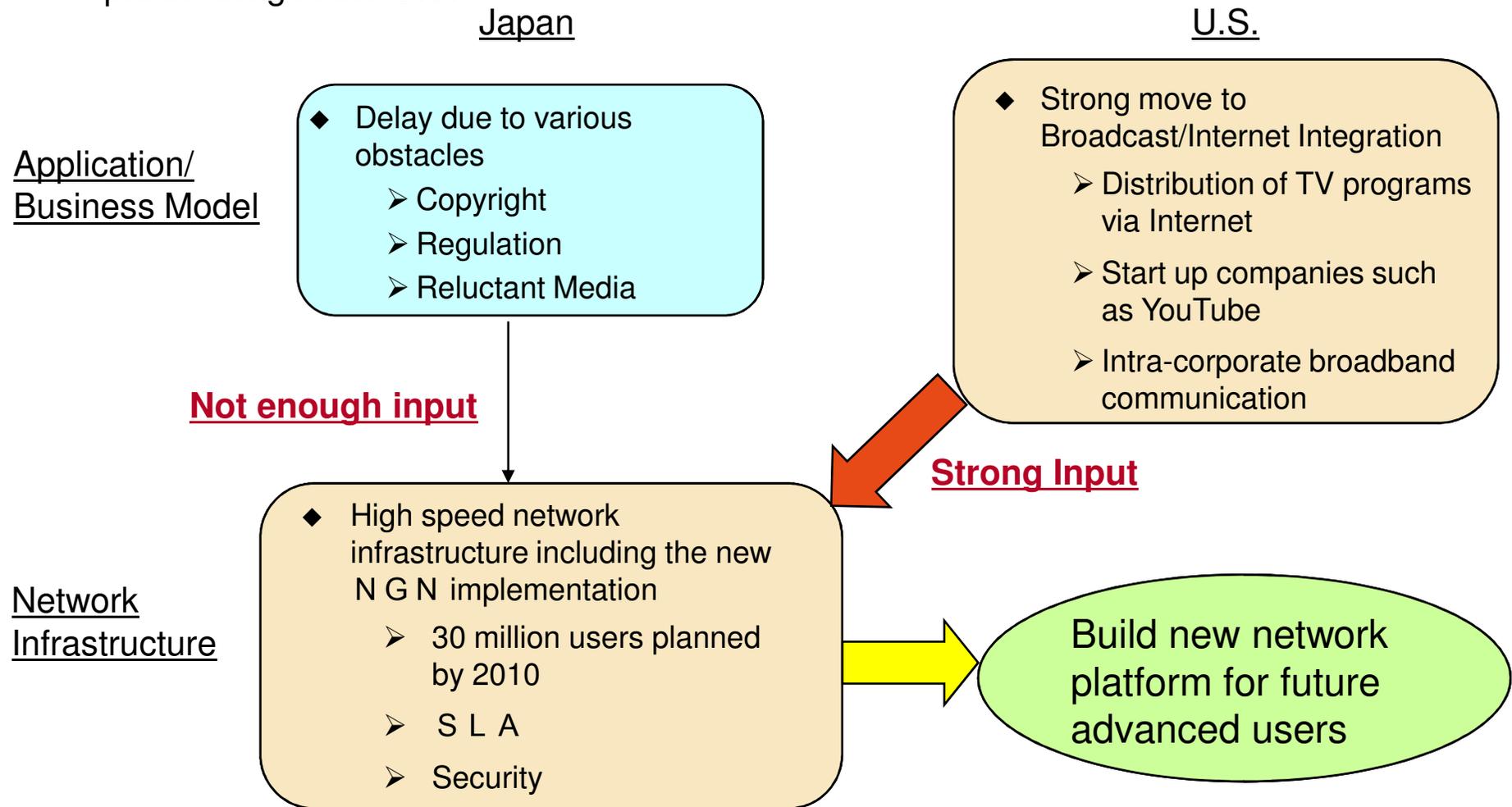
What Broadcasting Companies Need to Consider



- Don't delay making the change → Don't fall behind the Internet companies
- Aggressively resolve any copyright issues and promote deregulation where needed → Don't rely on today's success model which will go away soon
- Partner with Internet companies where necessary → However, do not give away everything to the Internet companies
- Consider partnering with U.S. companies that own content → Now may be a good chance to deliver U.S. content in Japan/Germany

What Network Carriers Need to Consider with NGN

- ◆ N G N needs to accommodate the requirements of the advanced applications proliferating in the U.S.



It will contribute to Global Acceptance of NGN

What German/Japanese Companies Need to Consider

- ◆ There are many things you can learn from what's happening in the U.S.

