

Broadband Delivery Systems:
distribution infrastructure responsible for content delivery to the home.

Industry leaders:

- Adelphia
- Cablevision Systems
- Charter
- Comcast Cable
- Cox Communications
- DirecTV
- EchoStar
- Insight
- Time Warner Cable

Network Content Providers:
a broad category spanning all distributors of educational and entertainment content that provide the base for interactive TV.

Industry leaders:

- Time Warner/HBO/CNN
- Discovery
- Disney/ESPN/ABC
- GameShow Ntwk
- PBS
- Viacom/ShowTime/CBS
- Weather Channel

Data Collection and Response: purveyors of technologies that harness addressable data to deliver personalized, targeted content.

Industry leaders:

- DoubleClick
- nCube
- NDS
- Nielsen
- OpenTV/ACTV
- SeaChange International

Hardware: primarily consists of digital set-top box (DSTB) embedded with application-specific microchips.

Industry leaders:

- Motorola
- Pace Micro
- Philips
- Pioneer
- Scientific-Atlanta
- Sony
- Thomson / RCA
- Toshiba

Middleware: functions as a transition/conversion layer of network architecture that ensures compatibility between the basal infrastructure and diverse upper-level applications.

Industry leaders (with respective operating systems):

- Liberate Technologies (Java)
- Microsoft TV (Windows CE)
- NDS / MediaHighway (Java)
- OpenTV (Spyglass)

Interactive Application Platform: interface that facilitates viewer interactivity and selectively delivers content.

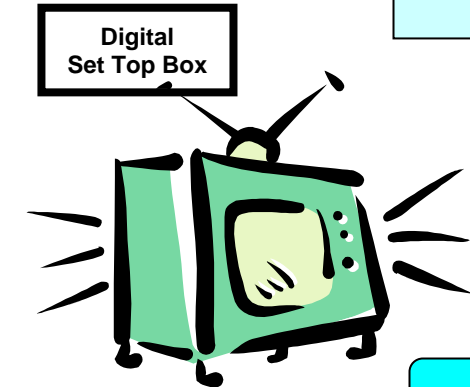
Industry leaders:

- ICTV
- NDS
- OpenTV / ACTV
- Scientific Atlanta / PowerTV
- Wink Communications

User-level Applications: a diverse category that spans the following primary services and their respective leading providers.

Industry leaders:

- Interactive gaming
NTN, OpenTV/Static, Two Way TV
- Interactive Programming Guides (IPG)
DecisionMark, Gemstar-TV Guide, Gist, TMS, TV Gateway
- Digital Video Recording (DVR)
EchoStar, Digeo, ReplayTV, TiVo
- T-commerce (stand-alone applications)
Cauldron, OpenTV / Wink
- Video-On-Demand (VOD)
Concurrent, N2, nCUBE, NDS, SeaChange, TVN



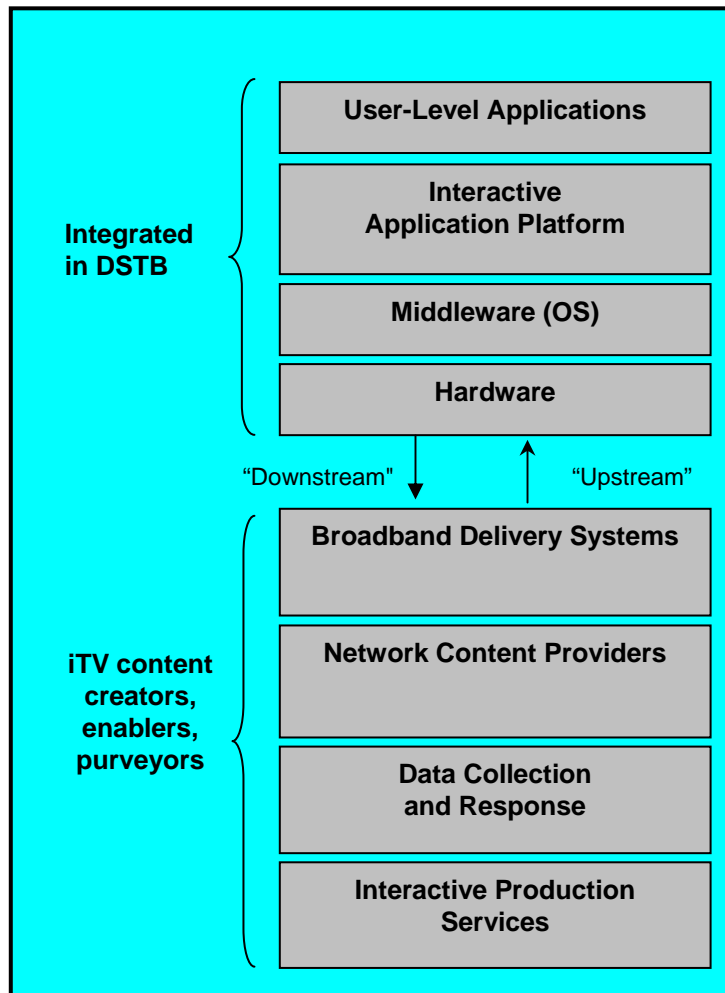
Interactive Production Services: provided by creative production studios that develop interactive interfaces and furnish tools necessary for specific interactive applications.

Industry leaders:

Production	Tools
• Ascent Media	• Chyron
• BeyondZ	• Goldpocket
• Brainstorm	• MetaTV
• Extend Media	• N2
• Schematic	• NDS

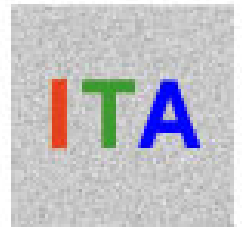
Programmers Advertisers

iTV Content Flow



iTV will dramatically change TV advertising

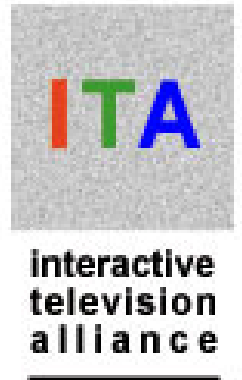
IPv6 empowers anonymous tracking of consumer data and targeted ad delivery



**interactive
television
alliance**

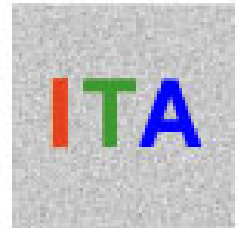
iTV allows personalized distribution of content

IPv6 enables tracking of viewer behavior and targeted content



iTV provides a platform for new transactional services

IPv6 enables anonymous tracking of transactions over multiple distributions systems



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iTV provides integration of enhanced entertainment hardware

IPv6 creates a flexible and standardized identity between devices

