

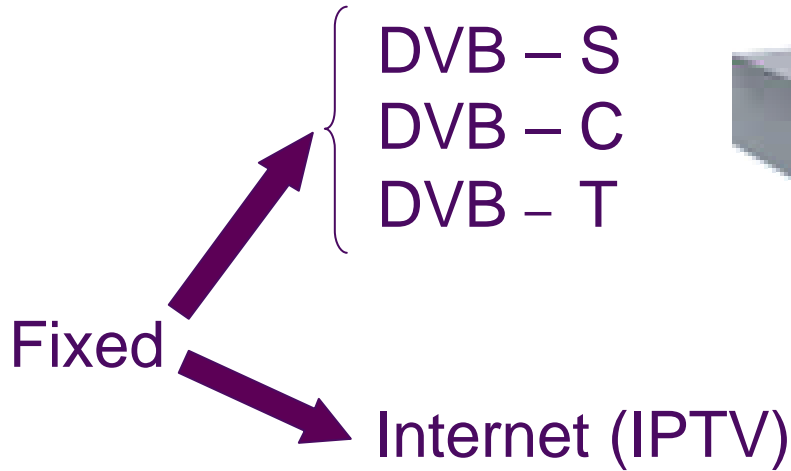
Piracy in Multi-Play Premium Content Distribution:

- Mobile, IPTV and DTT

22 November 05

- Created Irdeto anti-piracy strategy
- Has led Irdeto anti-piracy programme since 1998
- The Representative of the four Companies that own the DVB CSA
- Member of Board of European Association against Piracy (AEPOC)
- First EU CAD piracy prosecutions
- Put a German pirate into a Thai jail for 6 months
- Attached pirates', houses and cars

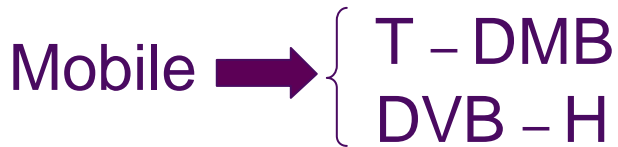
% market



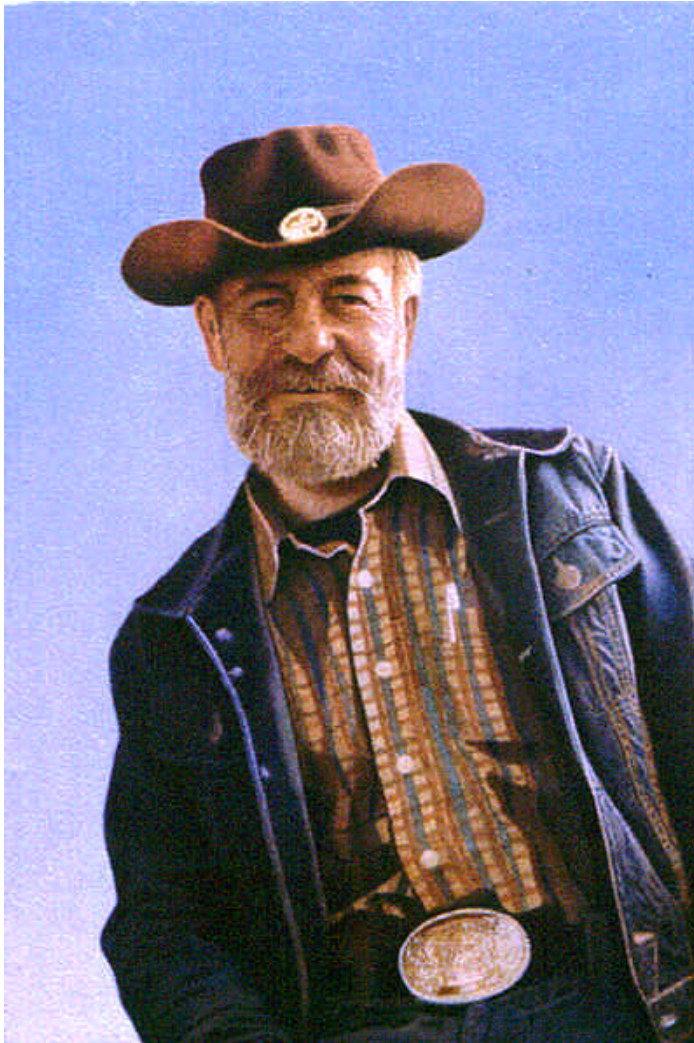
98%



< 2%



< 1%



- Mature
- Global
- 80 million subscribers
- > \$30 billion p.a. in subscription revenue alone



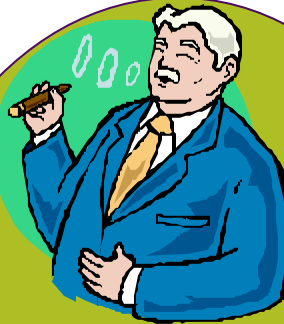
- DVB – C/T
- IPTV
- Mobile



Who are the pirates? ■



Hackers & Crackers



Organised Crime



**Set Top Box
&
Smart Card
Manufacturers**





- Premium content producers increasingly aware of need for good security technology
 - Insistence on security audits generating an industry
 - At last they're taking the cognoscenti seriously
- Legislative environment & enforcement improving
 - The law is catching up
 - Police forces becoming more cyber savvy
- CA industry security technology maturing
 - Tempered in the fire of battle
 - Security technology much tougher now
 - Well developed ability to trace, track and punish content thieves

Reactive Services	Proactive Services	Security Quality Management Services
<ul style="list-style-type: none"> ■ Alerts and Warnings ■ Incident Handling <ul style="list-style-type: none"> - Incident analysis - Incident response support - Incident response coordination ■ Vulnerability Handling <ul style="list-style-type: none"> - Vulnerability analysis - Vulnerability response support - Vulnerability response coordination ■ Artifact Handling <ul style="list-style-type: none"> - Artifact analysis - Artifact response - Artifact response coordination 	<ul style="list-style-type: none"> ▪ Announcements ▪ Technology watch ▪ Configuration & maintenance of security tools ▪ Development of security tools ▪ Intrusion detection ▪ Security-related information dissemination 	<ul style="list-style-type: none"> ▪ Risk analysis ▪ Security consulting ▪ Awareness building ▪ Education/training

- Pirates will punish any mistakes
- Licensing environment needs to be thought through
 - Eliminate nooks and crannies that content thieves can exploit
- Nothing protects IPR like a good patent
 - Cyber law increasingly protects the content rights holder, but who protects the CA vendor?
 - Idle to expect copyright enforcement on software

■ IPTV

- Hacking of content servers
- Session hijacking
- Spoofing
- Malware
- Spyware
- Denial of service
- Hacking of client devices
- Identity theft

■ Mobile

- IP theft (applications, add-ons..)
- Subscription fraud
- SIM-lock cracking
- Revocation of accounting data
- Identity theft

- The shackles of legacy set top boxes
 - As smart card security has got better, pirates look elsewhere for low-hanging fruit
- Industry dynamic – the tension of the successful start-up
 - Grow the business at all costs
 - Horizontal market
 - Available everywhere on everything
 - When mature, need security to protect revenue streams and premium content
- Content rights should know no boundaries

Three groups spend other people's money:
children, thieves, and politicians.
All three need supervision.

Dick Armey