

UHD Content Protection: A View from All Sides of the Ecosystem

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Enabling Innovation Across Industries

Leading in wearables and the IoT

>70% of smart TVs and >95% of portable game consoles

Enabling the transformation of the network infrastructure and data center



>80% of digital cameras

>95% of smartphones and tablets

Driving smart energy, automotive, home networking

First ARM-based servers now shipping

Vulnerable Systems

Huge amount of software runs on a single device

- Complex protocol libraries (TCP, SSL, XML)
- Impractical to audit security of all software
- Large attack surface

Shared environment

- Single address space, shared stacks, etc
- E.g. XML library can access keys in SSL library
- A single vulnerability can compromise the entire system

Physical access often required to re-flash with clean firmware

- Not practical in many cases
- Not scalable



“They Just Did It Wrong”

Many vulnerabilities seem obvious when found

- Easy to put problems down to poor software
- Very difficult to measure code security
- Hard to find all remote vulnerabilities
- “It won’t happen to me, I know what I’m doing”

Developers

- Security often a secondary concern
- Often not aware of potential vulnerabilities

Attackers

- Security experts
- Greatly outnumber developers
- Have lifetime of product to find vulnerability

