

DRM and Content Protection: Enabling Successful Entertainment Content Services

Dr Simon Blake-Wilson





SafeNet Company Overview

- Founded in 1984, approximately 1200 employees
- SFNT on NASDAQ, \$264 Million (2005)
- Worldwide Offices
- Security Focus
- Authentication, Data Protection, Rights Management
- Customers include 80% of Fortune 1000 - most banks, governments, entertainment studios, and hardware manufacturers are our customers



Entertainment Content Services

“Total market for streamed and broadcast TV services will increase from US\$136 million in 2005 to more than US\$7.6 billion by 2010”

- Juniper Research

“Over 13 billion US\$ will be generated by all forms of mobile music by 2011”

- Informa Telecoms & Media



Entertainment Content Services (cont)

3G offers the possibility of enhanced services:

- Music
- Video
- TV



Compelling entertainment services are often crucial to re-couping investment in 3G infrastructure.

Compelling services depend on compelling content ... which content owners will only release if piracy concerns are addressed.



Preventing Piracy

A number of tools are available for piracy prevention:

- Digital Rights Management (DRM) and Conditional Access (CAS)
- Anti-Piracy Services
- Watermarking

These tools have different properties and complement each other.

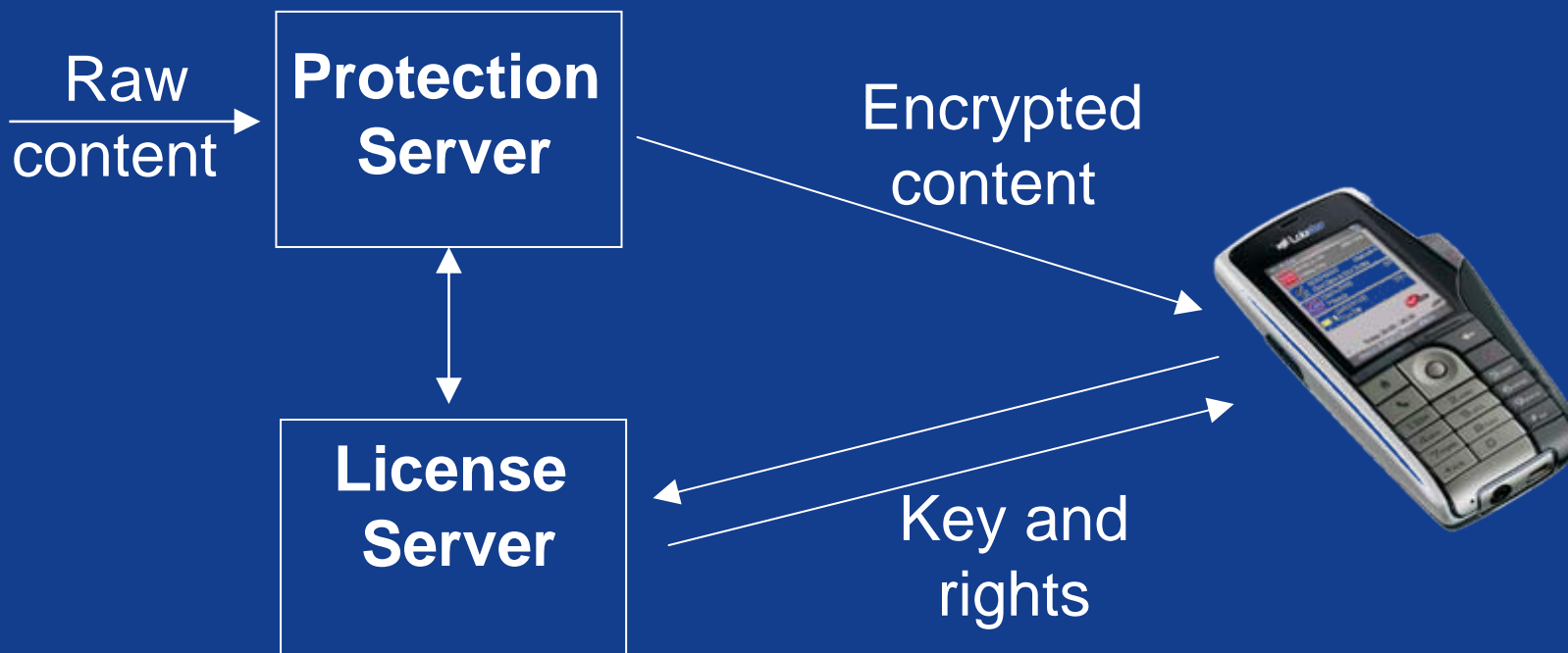


DRM

- DRM protects entertainment content from unauthorized usage, even by authorized users
- There are multiple DRM technologies:
 - Microsoft Windows Media DRM
 - OMA 1 DRM
 - OMA 2 DRM
 - Apple Fairplay
 - Real Helix
- Appropriate choice of technology will depend on deployment environment



DRM Operation





DRM Rights

Typical rights:

- Play
- Copy
- Burn

Typical restrictions:

- Count
- Duration



DRM Deployment

The reputation of DRM has suffered due to technology Limitations, owner business models, and deployment issues.

All the usual security principles must be applied:

- Don't rely solely on DRM for protection
- A good user experience is essential
- DRM must be managed, not deployed and forgotten
- DRM solutions should be judged on quality, not just functionality



DRM for Mobile Music

Main issues when protecting mobile music services:

- Choice of business model: download-to-own vs subscription or all-you-can-eat
- Delivering to as many customers as possible: supporting multiple DRM technologies
- Providing a copy for PC and phone: dual download vs sideloading
- Recommendations among friends: superdistribution



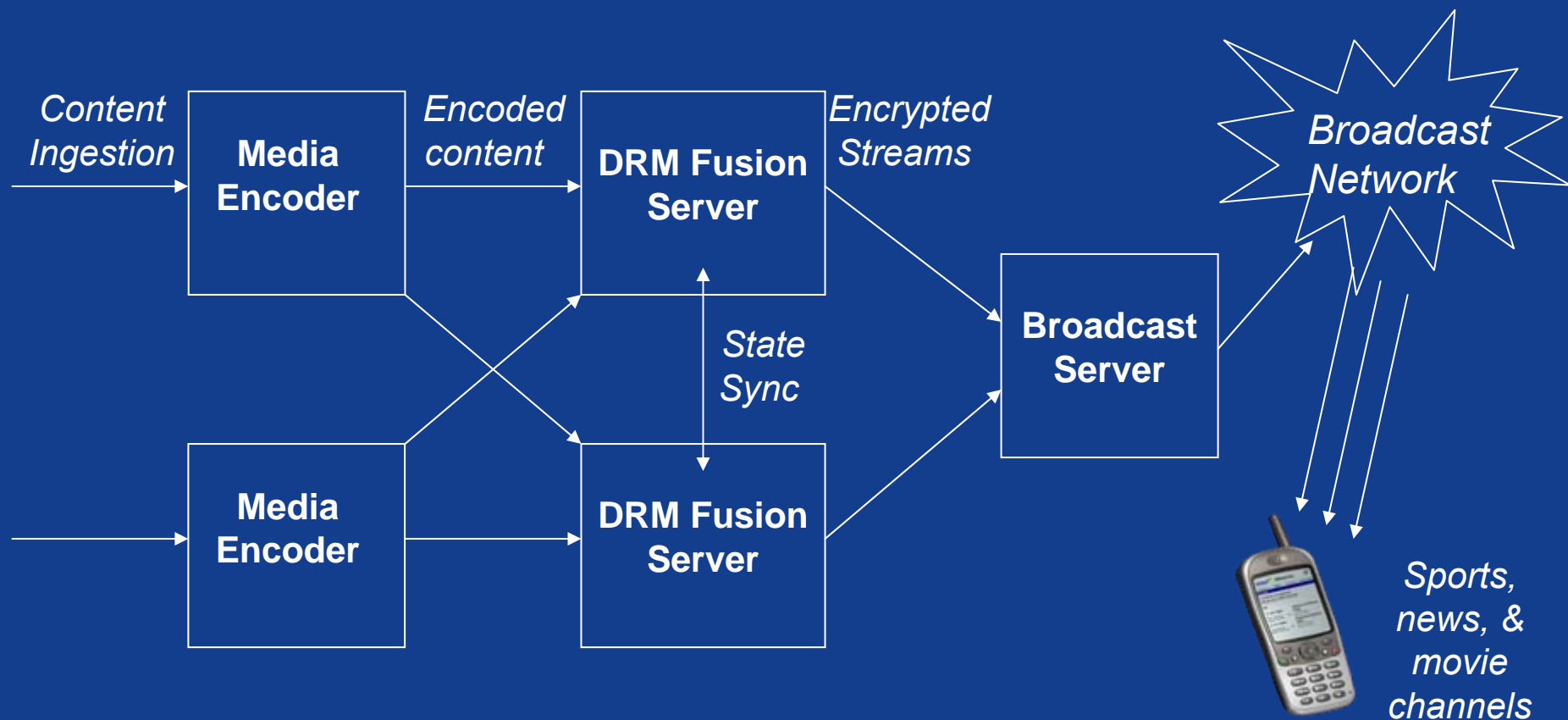
DRM for Mobile Video and TV

Main issues when protecting mobile video and TV services:

- Service reliability and live encoding
- Protecting broadcast streams
- Enabling rapid signal acquisition and channel switching
- Ability to mix subscription and pay-per-view on a single channel
- Preparing for recording: Tivo on your phone



DRM for Mobile TV and Video (cont)





Conclusions

- Entertainment content represents an exciting revenue opportunity for operators
- Compelling content requires protection using DRM
- All the usual security principles apply to DRM
 - Mix DRM with other protection methods
 - User experience is important
 - DRM is about trust

Questions? sblakewilson@safenet-inc.com