



Flash Memory as content portability enabler

Asaf Shen, Director Product
Marketing

August 2010

- Introduction
- Content portability – Scenarios & Barriers
- Security as an enabler
- Security requirements
- Discretix Overview

A Typical Modern Household

Many screens, different business models, multiple service providers



MSO

Proprietary
CAS



MNO

Standard
DRM



Telco/ISP

Various content protection
schemes

Monthly subscription, Pay-per-view, Download-to-own, rentals...

A subset of 3 likely scenarios

TV → Mobile Device/Tablet

- Resume viewing from the point you stopped viewing on your TV

Mobile Device/Tablet → TV/PC

- View content from the mobile device on a large screen

Sharing

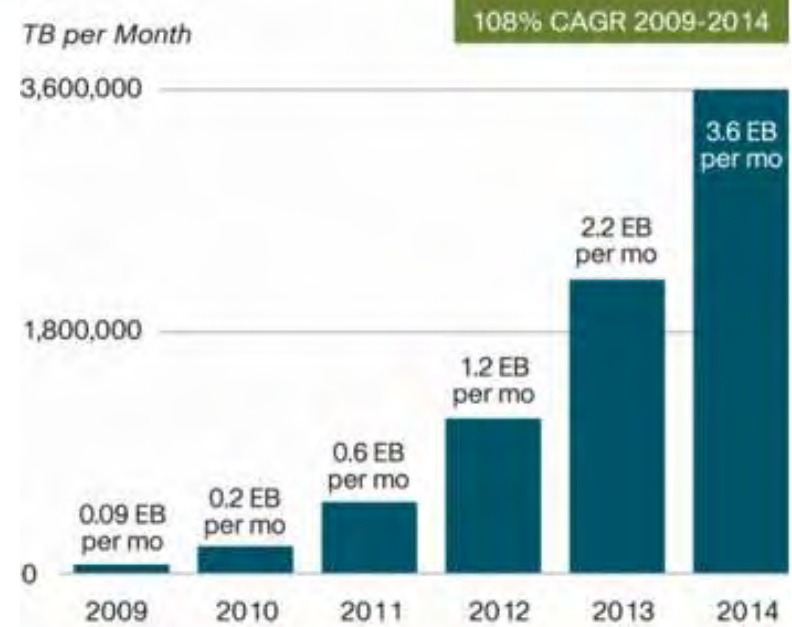
- Transferring content between devices in separate locations

■ Network bottleneck

- Smartphones place a massive burden on 3G networks
- Global mobile data traffic will double every year through 2014

■ Different DRM Standards

- Rights portability
- No overarching DRM scheme with sufficient market traction, enabling seamless content portability



For more details, see Appendix B: Forecast and Methodology.
Source: Cisco VNI Mobile, 2010

Flash memory...the ideal enabler



- Massive capacity
 - Large enough to store HD movies
- Cost effective
- Personalized by the service provider
 - Using smart card like features
- Application/Content platform
 - Can be preloaded with content, apps

Security Requirements

Stores the RO securely and partitioned separately for each DRM scheme



Secure Storage Module Partitioning

Security Requirements

Stores recorded content encrypted by the applicable DRM scheme



Secure Storage Module, Secure Partitioning

Security Requirements

Once MW is installed on device (one time event) a Secure Tunnel is created between card & device



Card crypto and MW to “hand shake” with host crypto and MW

Security Requirements

Card contains all relevant DRM schemes



Multi-Scheme DRM with underlying crypto & MW Modules

Security Requirements

Middleware module to be installed on viewing devices



OS dependant software crypto and Middleware

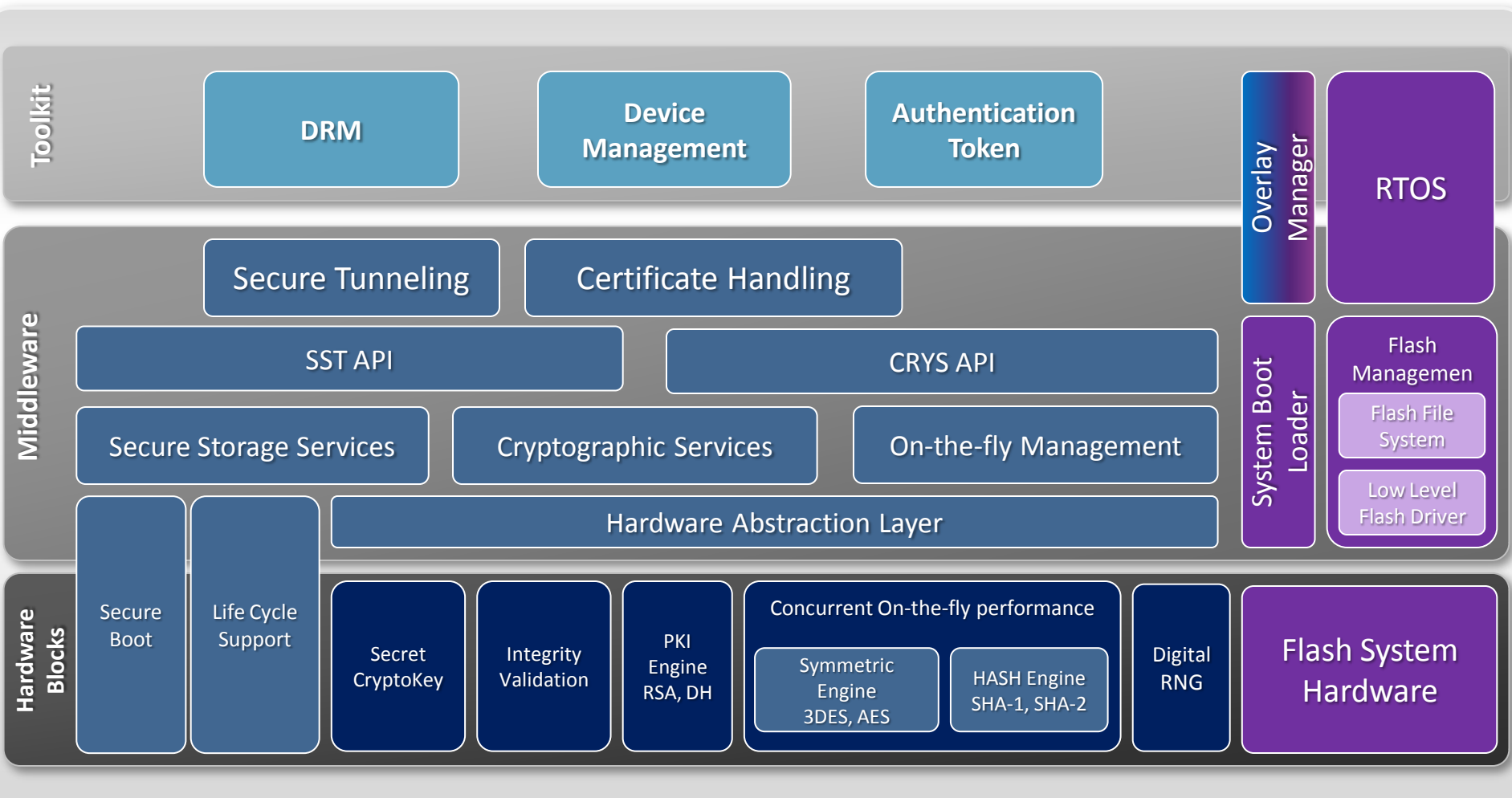
Security Requirements

Content is decrypted on the card (offload host)



High performance decryption capabilities

CryptoFlash[®] Building Blocks



Discretix at a Glance



Embedded Security for Multi Markets



Shipping over

2 0 0 0 0 0 0

Devices per month

Facts & Figures:

- Founded in 2000
- VC backed - \$25M in funding
- 90 employees (70+ in R&D)

■ Global presence

-  HQ – Israel
-  Santa Clara, USA
-  Tokyo, Japan
-  Taipei, Taiwan
-  Seoul, Korea
-  Shanghai, China
-  Bangalore, India



Discretix Customers



Security Subsystem for Chipset Vendors



Content Protection Software for Device Vendors



Discretix Ecosystem



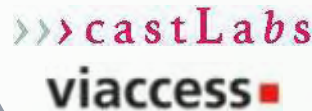
Device Applications

Server Side

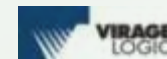
Hardware



TATA ELXSI LIMITED



COREMEDIA



WIND RIVER



montavista



T-Mobile



ENEAA

NTT docomo



OS Platforms

Operators

Standards