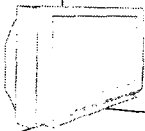




The Current Status of DVB-MHP and Its Future

Joo-Hyeon Ryu
Alticast Corp.
2002/05/23



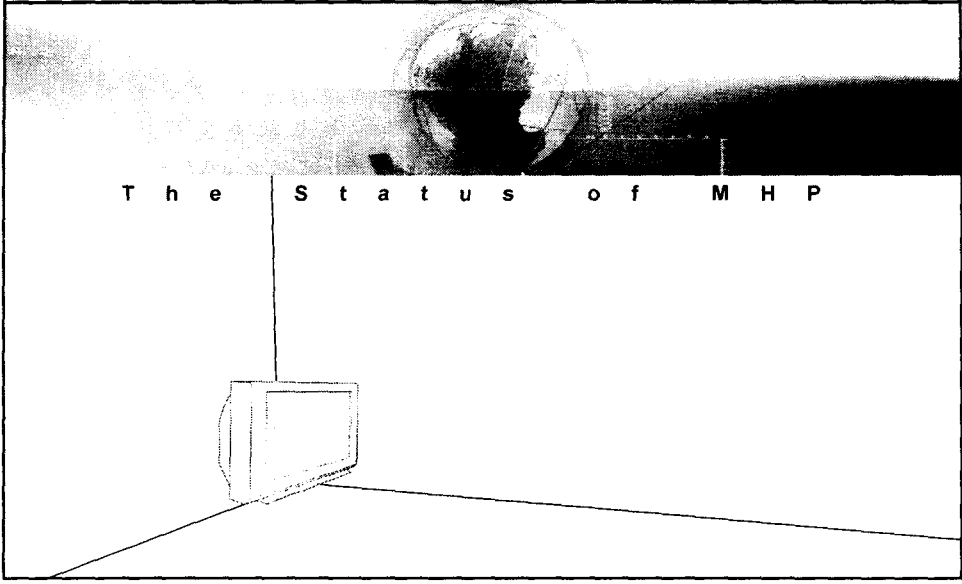
Contents

→ Now of MHP

- The Status of MHP
- The Current Issues of MHP
- SkyLife Project

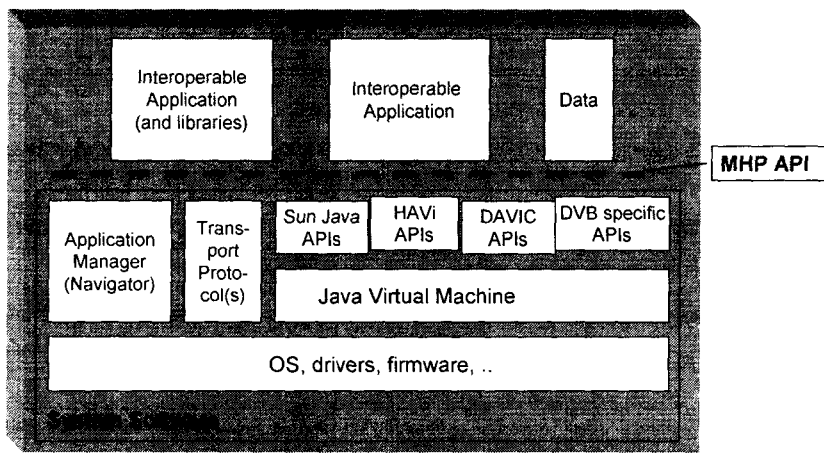
→ Future of MHP

- OCAP
- MUG
- MHP 2.0



MHP Components

- DVB-J Platform



→ API specifications

- Java Core API is based on JAE 1.1.8
- JavaTV API is based on JavaTV 1.0
- JMF API is based on JMF 1.0
- JSSE API is based on JSSE 1.0.2
- HaviUI API is based on Havi 1.1
- DAVIC API is based on DAVIC 1.4.1 part 9

→ Platform specifications

- JVM is based on JVM spec 1.1 and its errata
- Security Framework is based on pJava 1.2a

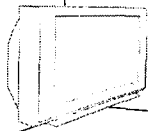
→ MHP 1.0.x:

- 2000. 7 MHP 1.0
- 2001. 7 MHP 1.0.1
- 2002. 2 MHP 1.0.2 (final revision of MHP 1.0)
- Profiles
 - Enhanced Broadcast Profile 1
 - Interactive Broadcast Profile 1

→ MHP 1.1.x

- 2001. 11 MHP 1.1
- 2002 MHP 1.1.1 (undergoing)
- Profiles
 - Enhanced Broadcast Profile 2
 - Interactive Broadcast Profile 2
 - Internet Access Profile 2

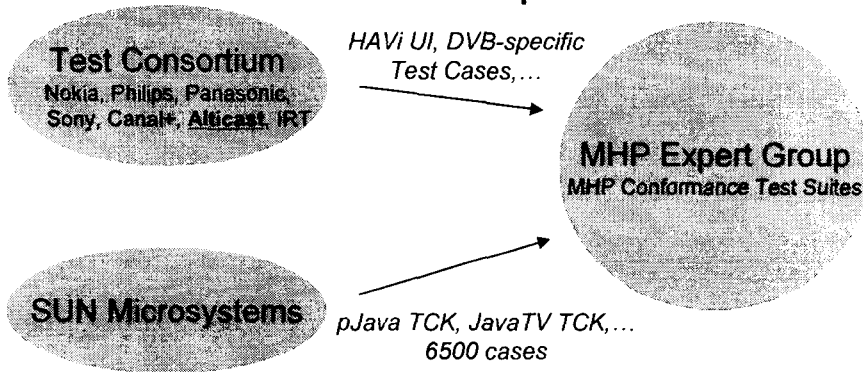
The Current Issues of MHP



Interoperability

Conformance & Interoperability Testing

• **Conformance Test Suite Development**

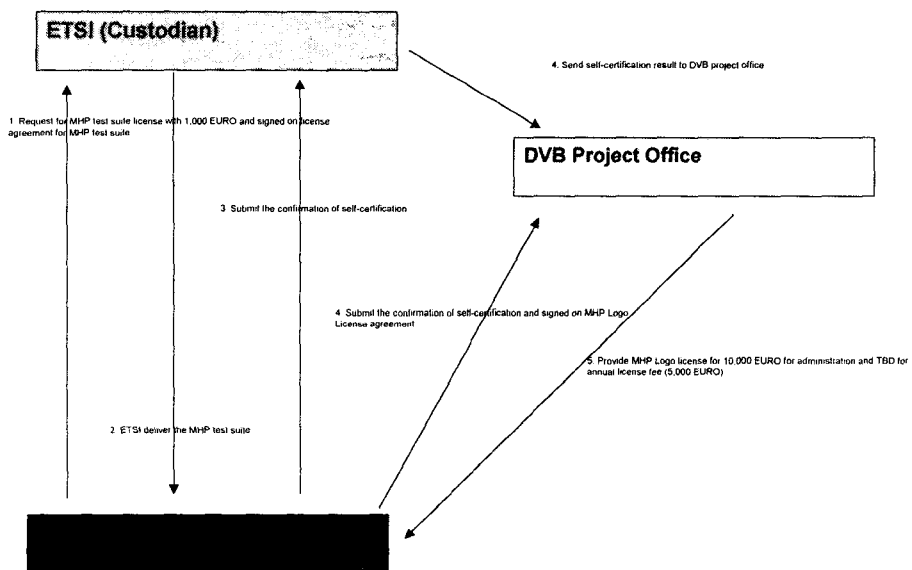


Licensing (Next Page)

- **Checking Validity of Test Assertions**
 - Reviewing Test Assertions

- **Examination of Test Suite**
 - Running and Verifying Test Cases before submit

- **Upgrading Test Suite**
 - Upgrade Test Cases based on MHP 1.0 to MHP 1.0.2



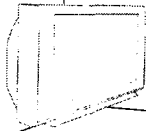
- According to DVB-MHP members report at 2001
- H/W requirements
 - MHP 1.0.x
 - CPU : 80~130 MHz or above
 - RAM : 8~16 MB or above
 - FlashROM : 8 MB or above
- Estimated Additional Cost (comparing with non-mhp STBs)
 - €43-71 today
 - €21-40 by 2005
- Regarding MHP royalty, there could be no charge for specification itself.

→ MHP 1.0.1 Interactive Profile 1

MHP version	1.0.1 (Alticast AltiCaptor)
MHP profile	Interactive Profile
CPU	130 MIPS or above
FlashROM	8MB or above
DRAM	32MB or above
Color Model	16-bit color
Return Channel	56Kbps Modem
CAS	NDS VideoGuard



F u t u r e o f M H P



OCAP

- **OpenCable Application Platform**
- **Progress**
 - 2002. 1 OCAP 1.0 based on MHP 1.0.1
 - 2002. 4 OCAP 1.0 based on MHP 1.0.2
 - 2002. 4 OCAP 2.0 based on MHP 1.1
- **95% API compatible with MHP**
- **Liaison with MHP Test Consortium**

- → **Korea Digital CATV Data Broadcast Standard**

→ Background

- CableLabs adopted MHP
- DVB now also working with Japanese, Chinese on their versions of MHP

→ “MHP Umbrella Group”

- Subgroup of the DVB Technical Module
- Terms of Reference Pending TM approval

→ Goals:

- **Harmonization of Middleware Standards and Specifications**
- **Global Content Interoperability**

→ Content Interoperability

- Facilitates support of Globally Executable MHP (GEM) Content
 - In OCAP and beyond

→ Deeper than Just API Signatures

- Documenting common APIs, behaviors, fonts, ...

→ MHP Mobile

- MHP for Mobile, Wireless Environment
- MHP Service on UMTS(Universal Mobile Telecommunication System) Network

→ MHP + PDR (Personal Digital Recorder)

- Dealing with Problems of Interactive TV Service with PDR (FF, REW, PAUSE)
- Utilizing Huge Storage for Interactive Service
- Liaison with TV-Anytime Forum

→ MHP + Home Networking

- MHP-based Interactive Service in Home Networking Environment
- Interactive Application Requirement for utilizing Home Networking

→ MHP over IP

- DVB Service over IP
- MHP-based Interactive Service with Internet Streaming

Conclusions

- DVB-MHP is still evolving
- Digital Broadcasting gives us New Media, New Biz Area, New Chance

Thank You

www.alticast.com

For questions, mail to
bizdev@alticast.com