The Changing Face of Standards (at Sony)

Open Forum for Standards Developers

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Overview

- Agenda
  - Item 1 Objective of Standardization at Sony
  - Item 2 Evolution of Standards Development Organizations and Consortia
  - Item 3 Interoperability and Hybrid Standards
  - Item 4 The Four Freedoms
Objective of Standardization for Sony

To Provide The Richest, Easiest And Most Satisfying User Experience
User Experience

- In The Days of Analog AV
  - It was all about standalone hardware

- In The Days of Digital AV
  - Both Hardware and software played the major role

- The Today of Connected (or Networked) AV
  - User friendly Interoperability in our Universe is key
Model Universe of Interoperability
The Real Universe of Today

Multiple Stacks of Standards are disturbing
User Friendly Interoperability

This is our challenge
Evolution of Standards Development Organizations and Consortia

1960
1980
2000

Formal SDOs
- National Body Process
- Trade Associations

Informal SDOs
- Consortia
- SIGs
- Forums

Source: Gerry Lane, IBM
Greater Demand for Inter-standard Interoperability

#2 Overall standards w/common subsets

#1 Interface standards

Broadcast Standard

Internet Standard

Mobile Wireless Network Standard

Home network Standard

Standard

Standard

Standard

Standard

Standard

Discs

ANSI

American National Standards Institute
Networked AV Standards Complexity

- The usefulness of the products on a network is equal to the cube of the number of products attached (so called network effect).

- However, the complexity of standardization of a network is larger than the cube of the number of standards involved for interoperability (for which I’ll coin the term network standards effect)
  - Thus the need for Hybrid Standards
Hybrid Formal/Consortia Process

-Example DLNA

Network & Service

Interface Standards

Hardware

Content

IEEE

UPnP

IETF

MPEG

JPEG

ETC.
Our Four Freedoms

• Safeguard Consumer Choice, Competition & Investment
  • Avoid Monopolistic practices
  • Avoid Orphaning
  • Orderly transition plans for new technologies
• Establish Fair and Open Technical Standards
  • Freedom to choose where to do the work
  • Hybrid Standards where applicable
• Require a Level Playing Field
  • Net Neutrality
  • Home Net Neutrality
• Remove Barriers to Innovation
  • Freedom to manage IP
  • Freedom for self declaration of conformity
Global Open Standard

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Open Standard

CEA
Digital Living Network Alliance

DLNA

INFORMATION TECHNOLOGY INDUSTRY COUNCIL

DTV

Blu-ray Disc Association

ANSC
American National Standards Institute

CODEC

IEEE

CE Linux Forum

DRM