

Agenda

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 - Level 1
 - Level 2
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What is HAVi?

- ◆ A standard that will allow all manner of digital consumer electronics and home appliances to communicate with each other
- ◆ HAVi is a digital Audio Video networking initiative that provides a home networking software specification
 - It is for seamless interoperability among home entertainment products
- ◆ It has been designed to meet the particular demands of digital audio and video

What is HAVi?

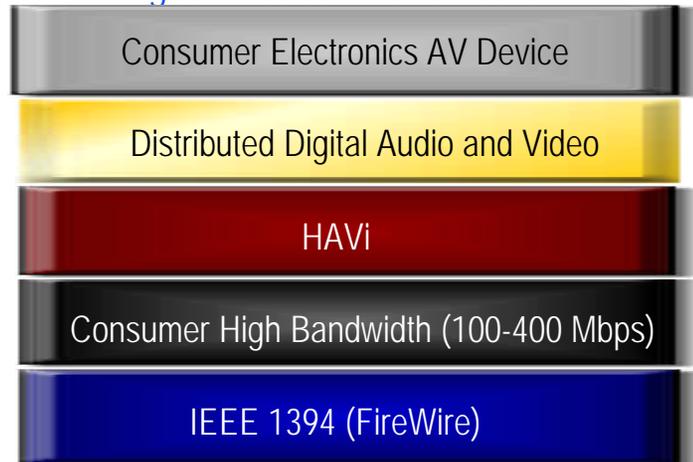
- ◆ It defines an operating-system-neutral middleware that manages:
 - Multi-directional AV streams
 - Event schedule
 - Registries
- ◆ HAVi software takes advantage of the powerful resources of chips built into modern audio and video appliances
 - It Provides the management function of a dedicated audio-video networking system
- ◆ IEEE 1394 (i.LINK[®] or FireWire[®]) has been chosen as the interconnection medium

What is HAVi?

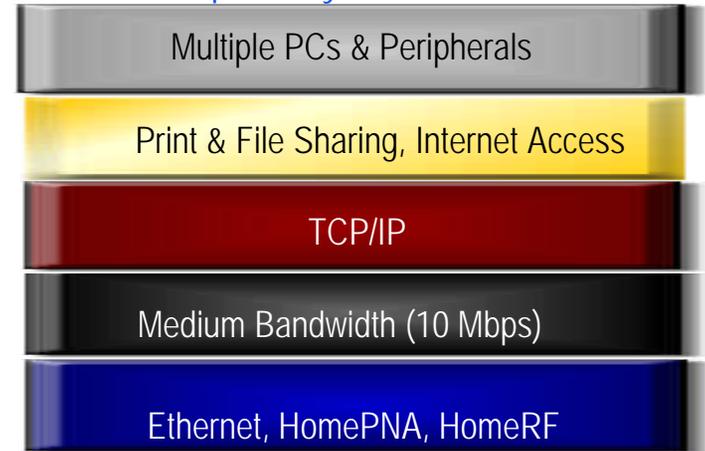
- ◆ IEEE 1394 network is capable of handling both commands and multiple digital audio/video streams
- ◆ IEEE 1394 is a standard which enjoys broad support from both the CE and IT industries
- ◆ IEEE 1394 currently provides a bandwidth of up to 400 Mb/s and is capable of Isochronous communication
 - Makes it suitable to simultaneously handle multiple real-time digital audio/video streams
- ◆ Longer transmission distances and faster data rate under the IEEE 1394 standard are near to completion

Different Home Networks

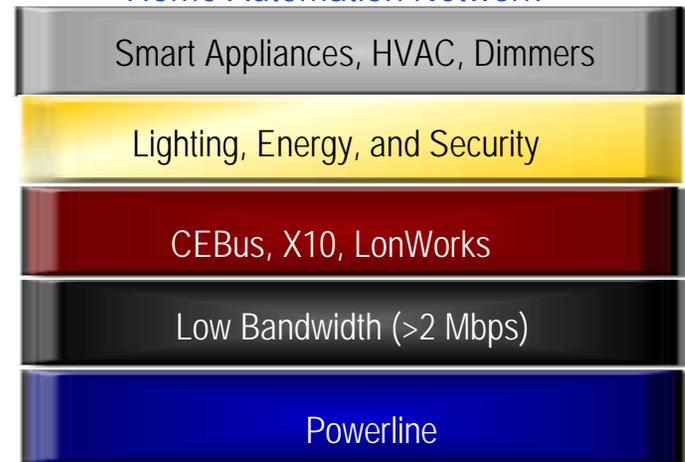
Digital Entertainment Network



Computer System Network



Home Automation Network



Driving Forces For HAVi

- ◆ Digital Broadcasting
- ◆ The Internet
- ◆ Digitalization Of Modern Homes
- ◆ Entertainment & Video Appliances
- ◆ Digital Home Networking
- ◆ High Bandwidth Requirements For Transmission of Audio and Video Signals

Who Are The Main Players?

SONY

PHILIPS

HITACHI

SHARP

Panasonic®

THOMSON MULTI MEDIA

GRUNDIG

TOSHIBA

Advantages Of A HAVi Enabled Device

- ◆ Automatically detection of devices on the network
- ◆ Instant coordination of the functions of various devices
 - Each added appliance to the HAVi network is automatically registered so that other devices know what it is capable of
- ◆ Installation of applications and user interface software on each device
- ◆ Ensuring interoperability among devices regardless of the manufacturer

Why Does The World Need HAVi?

- ◆ Interpretability
 - Functions on a device within the HAVi networking system may be controlled from another device within the system
- ◆ Brand independence
 - Entertainment products from different manufacturers will communicate with each other when connected into a HAVi network
 - VCRs, DVD players, Set Top Boxes, and ...can be shown up on the TV and be controlled by one remote commander

Why Does The World Need HAVi?

- ◆ Hot Plug and Play
 - HAVi compliant devices automatically announce their presence and capabilities to every other device on the HAVi network
 - Simple installation and set up
 - No more complicated and difficult installation instructions
 - no configuration of network addresses or device drivers

- ◆ Upgradability
 - Most HAVi compliant devices will come with their own dynamic Device Control Modules
 - Updating functionality can be done by downloading/uploading new capabilities via the Internet

A HAVi Home!

