

Lunch Panel Discussion -Monday, January 9, 12:20 p.m., LVCC Room N259/N261

The Connected Home Network

Moderator: Stu Lipoff, Partner
IP Action Partners

Panel Members:

1) **Gunjan Bhow**, Vice President,
Marketing and Product Management
Actiontec Electronics

2) **Bill Garrison**, Distinguished Member of
the Technical Staff of Connected Home
Solutions Business Unit
Motorola

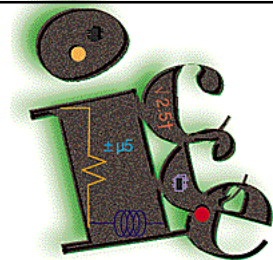
3) **Andreas Melder**, Sr. Vice President
Strategic Business Development
Intellon

4) **Brion Feinberg**, VP Systems Eng
Sereniti

5) **Ladd Wardani**, VP Business Dev
Entropic

6) **Eric Buffkin**, President
Pelagic Group Consultants &
MoCA Marketing W.G. Chair

7) **Ben Legault**, VP Marketing
Ellacoya Networks



Partner Event



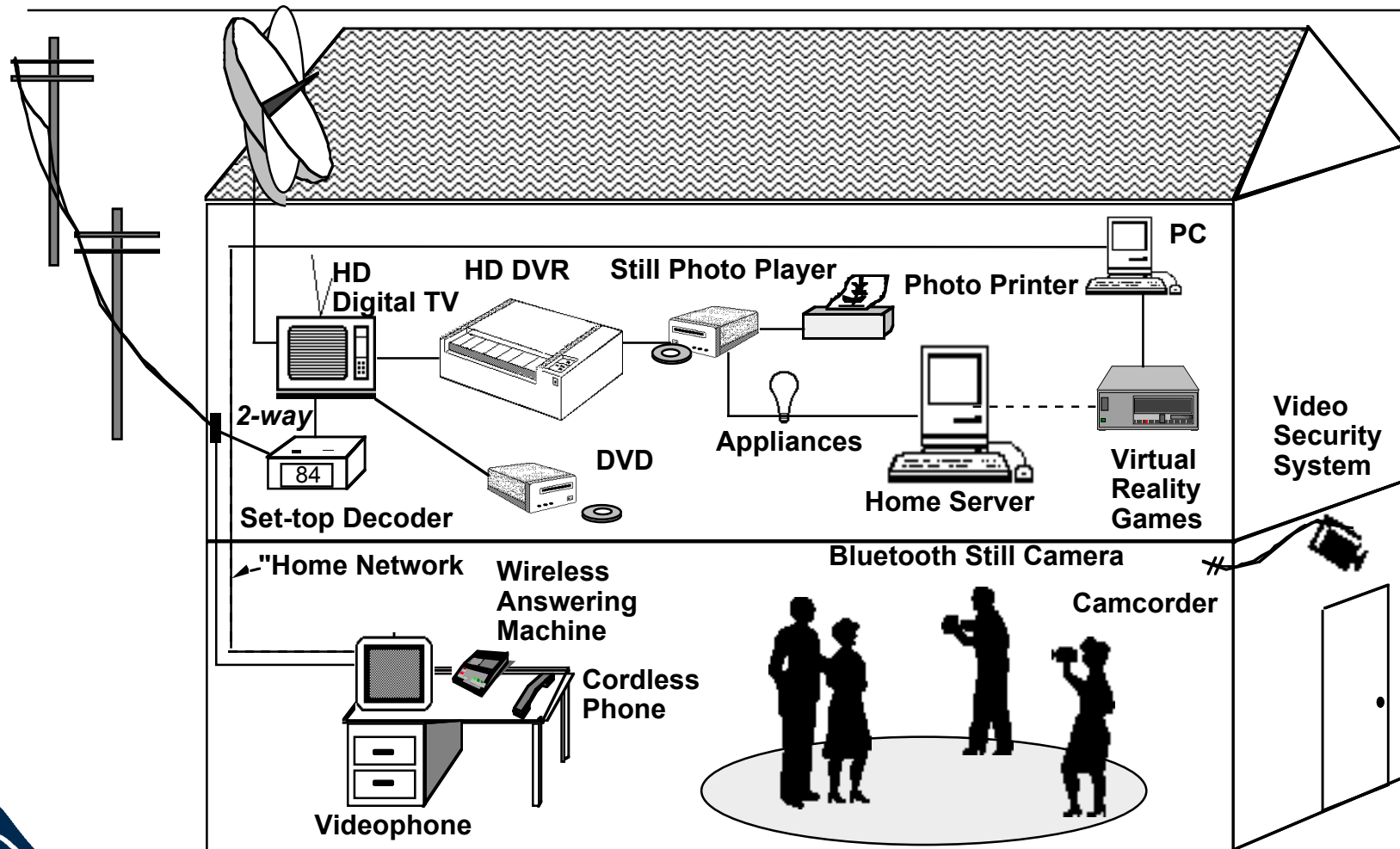
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Rev 1- 22Dec05

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ABSTRACT

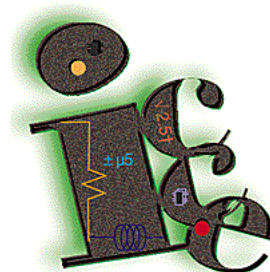
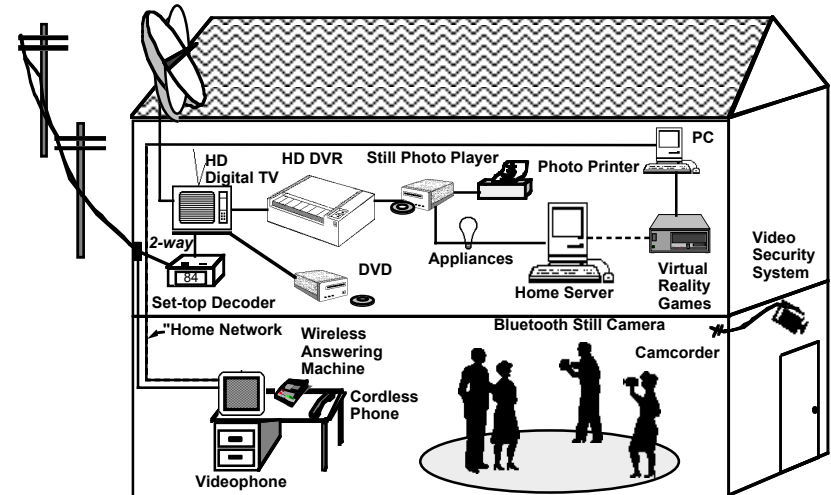
The historical situation with CE devices was that each device stood alone and was interfaced to external "pipes". However, with the growth of high speed internet services, multiple computers households, and the desire to share peripherals (e.g. printers); there has been a rapid deployment of home networks using wired and wireless in-home technologies. These in home networks well serve the original purpose of facilitating delay insensitive whole house internet connectivity; however, they fall short of supporting the demands of delay sensitive higher bandwidth audio/video traffic.



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A vision for the home network

- Ubiquitous *within*, and *into* home
- Seamless *between* domains
 - Guaranteed Service Provider
 - Authorized Service Provider
 - Connected Services
- Inter-vendor *compatible*
- BroadBand mixed media capable
- Consumer *friendly* to plan, install, operate, and maintain
- Secure and reliable
- Retrofittable
- Consumer *price* points



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DLNA also provides a few key usage scenarios to keep in mind.

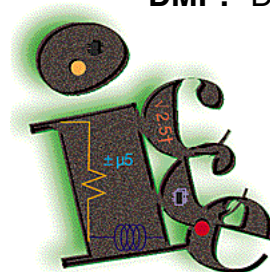
**Enjoy Content Anywhere with a DMS Supporting
Multiple DMPs**



DMP: Digital Media Player

DMS: Digital Media Server

Source:
Digital Living Network Alliance
September 2005



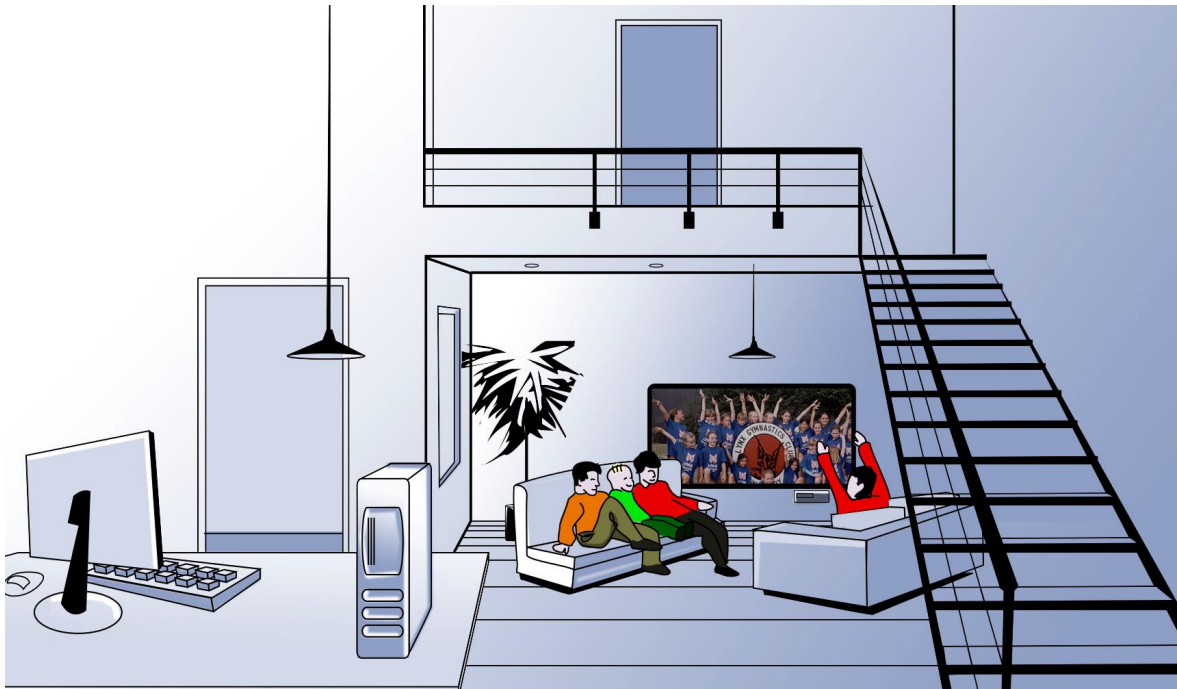
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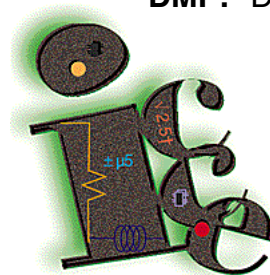
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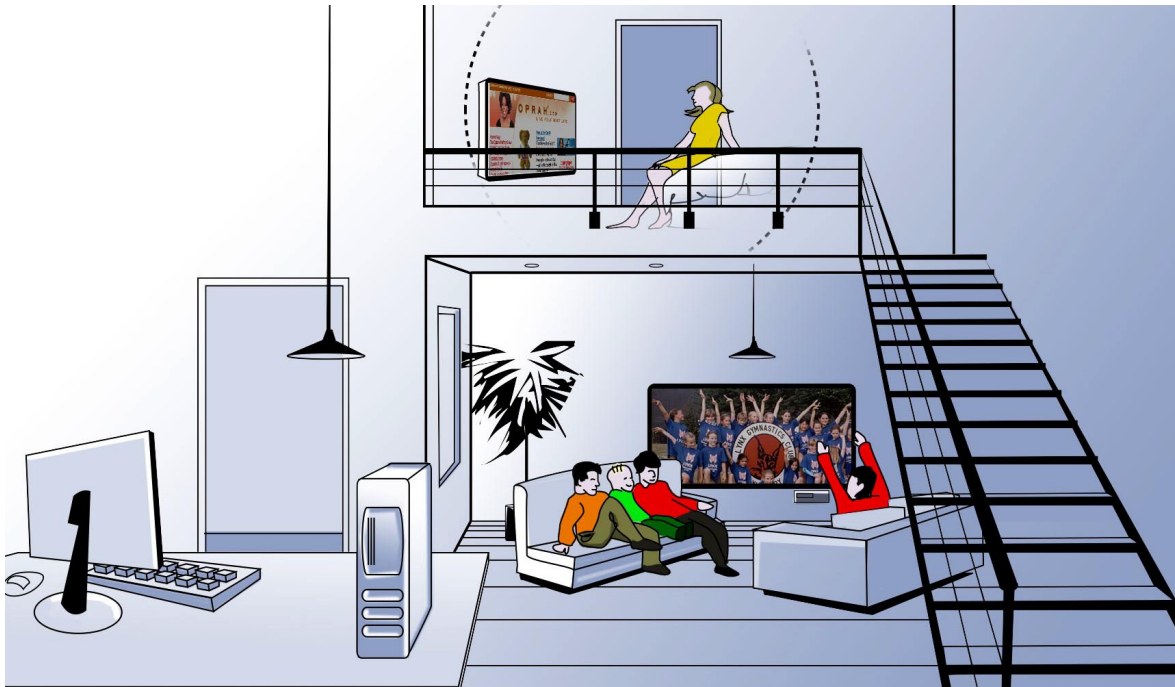
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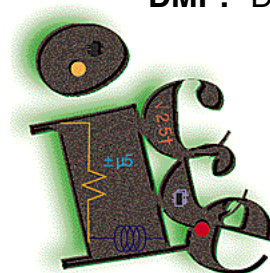
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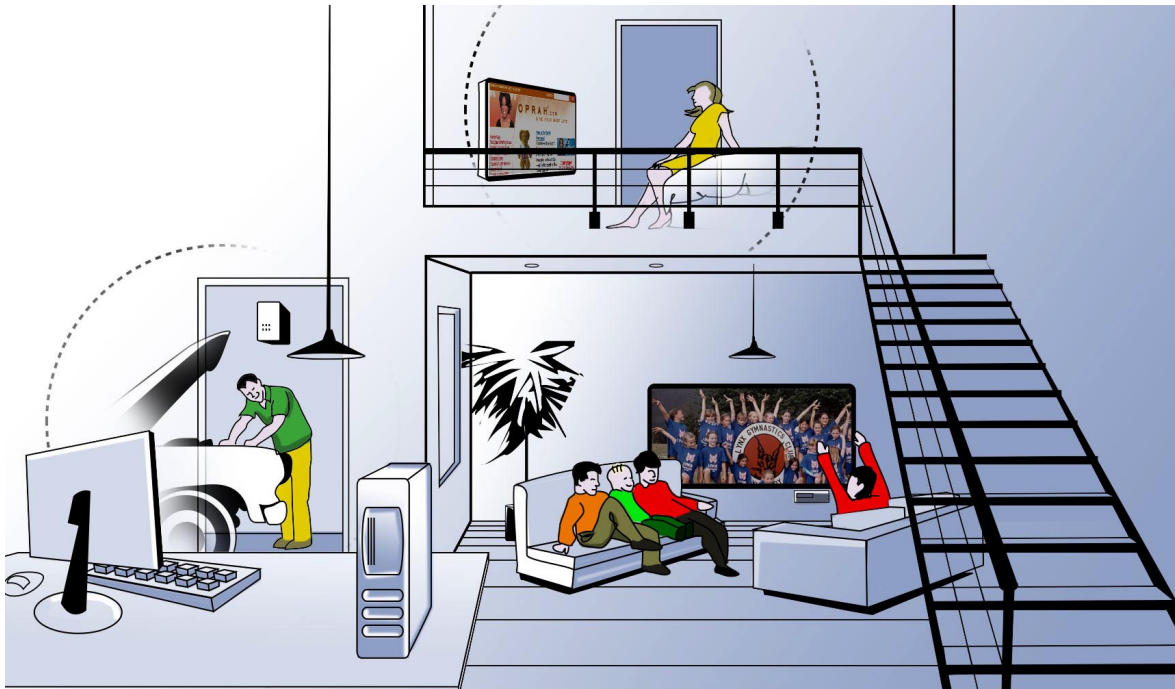
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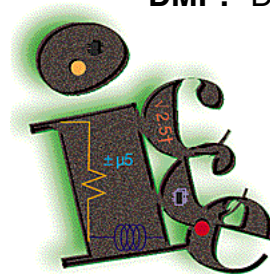
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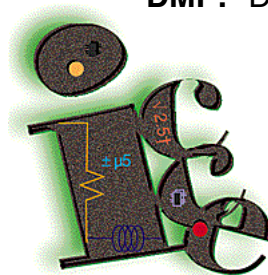
Access Multiple DMS' via a Single DMP



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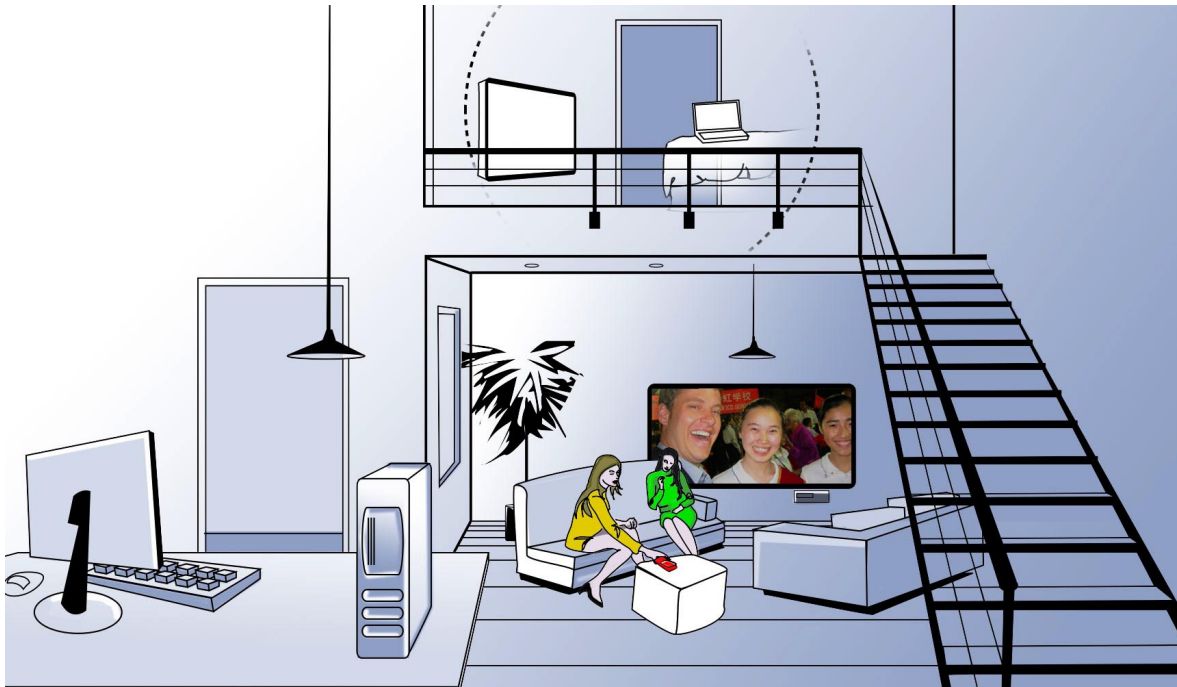
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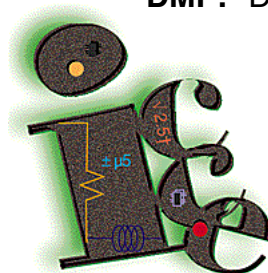
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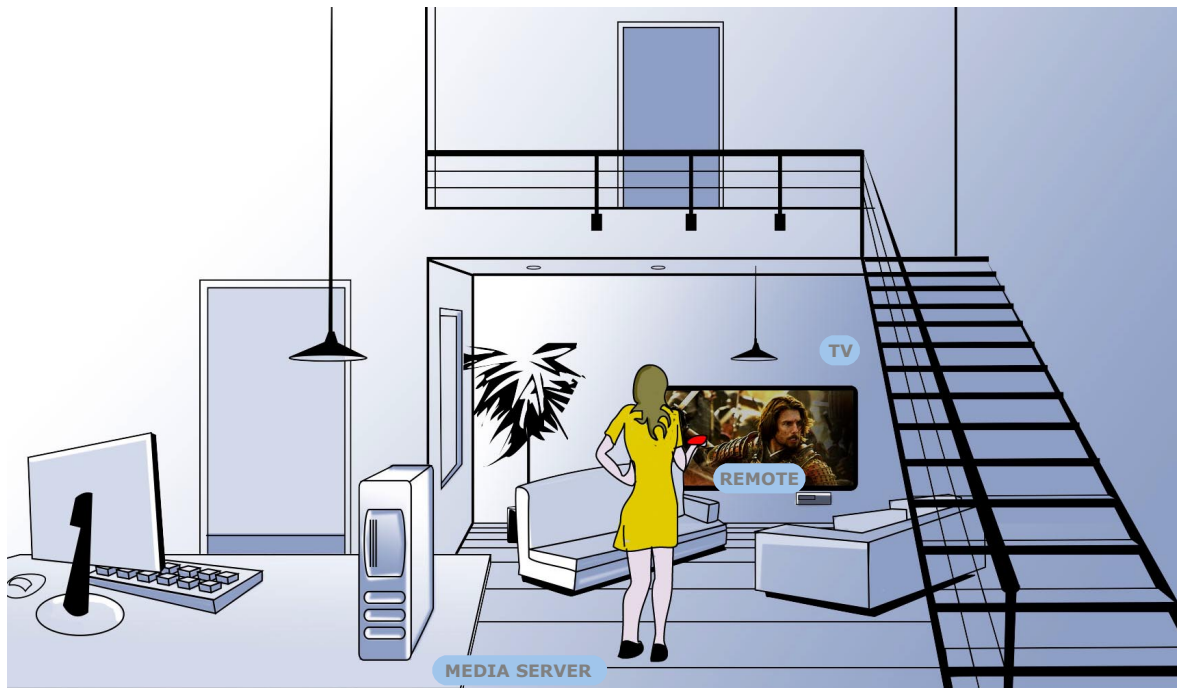
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DLNA also provides a few key usage scenarios to keep in mind.

Smart Remote (CP) for Control of DMS' & DMP's



CP: Control Point

Source:
Digital Living Network Alliance
September 2005



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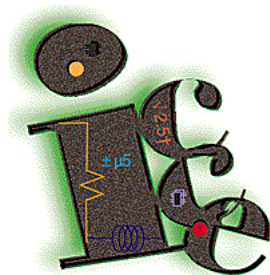
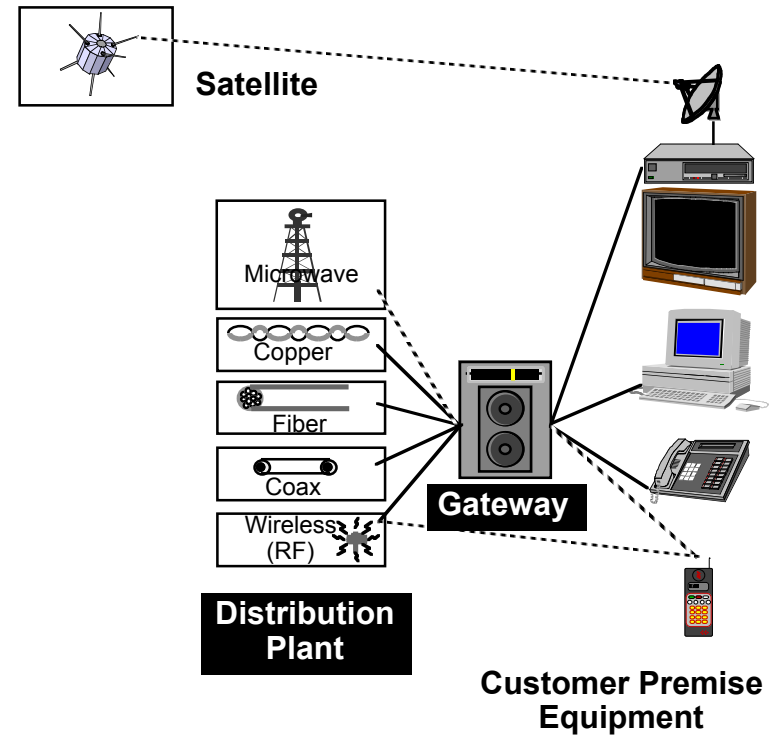
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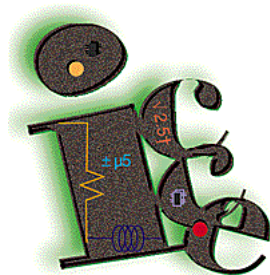
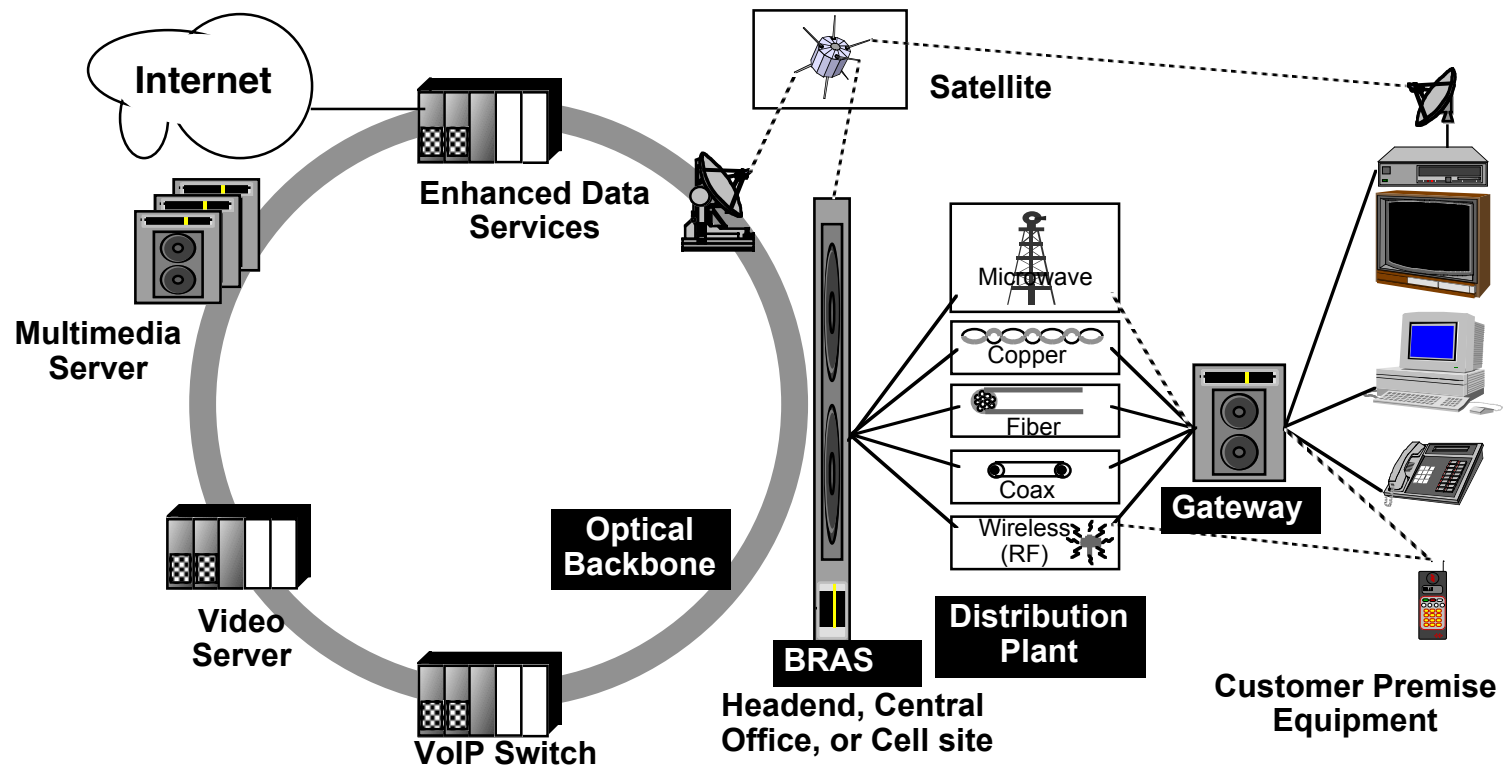
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The pipes coming into our homes are *bigger, cheaper, and varied*



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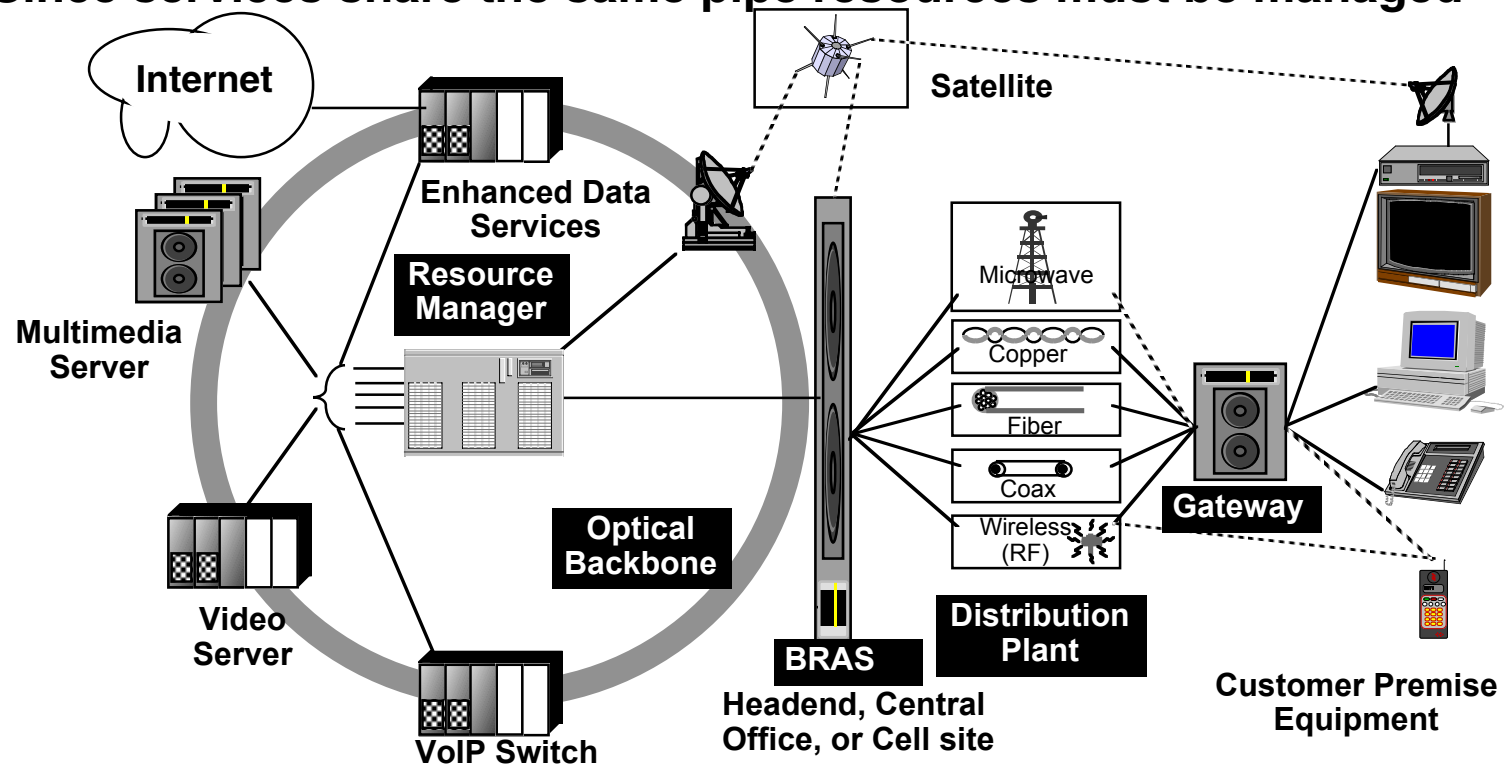
The service providers now offer triple and quad play service offerings



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Since services share the same pipe resources must be managed



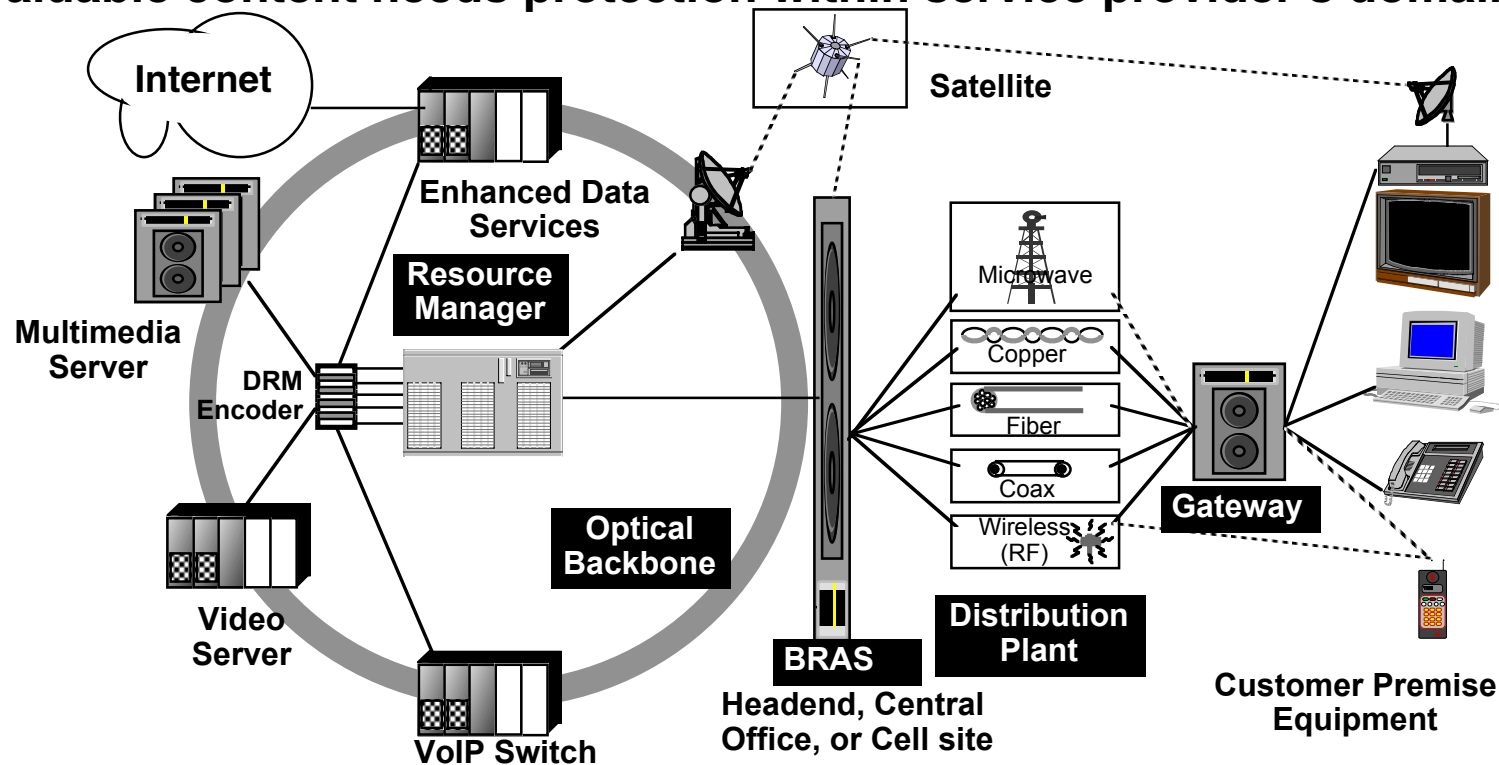
Operational Support Systems & Services (e.g. Network Management, Billing, Customer Validation, Clearing-house services)



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Valuable content needs protection within service provider's domain



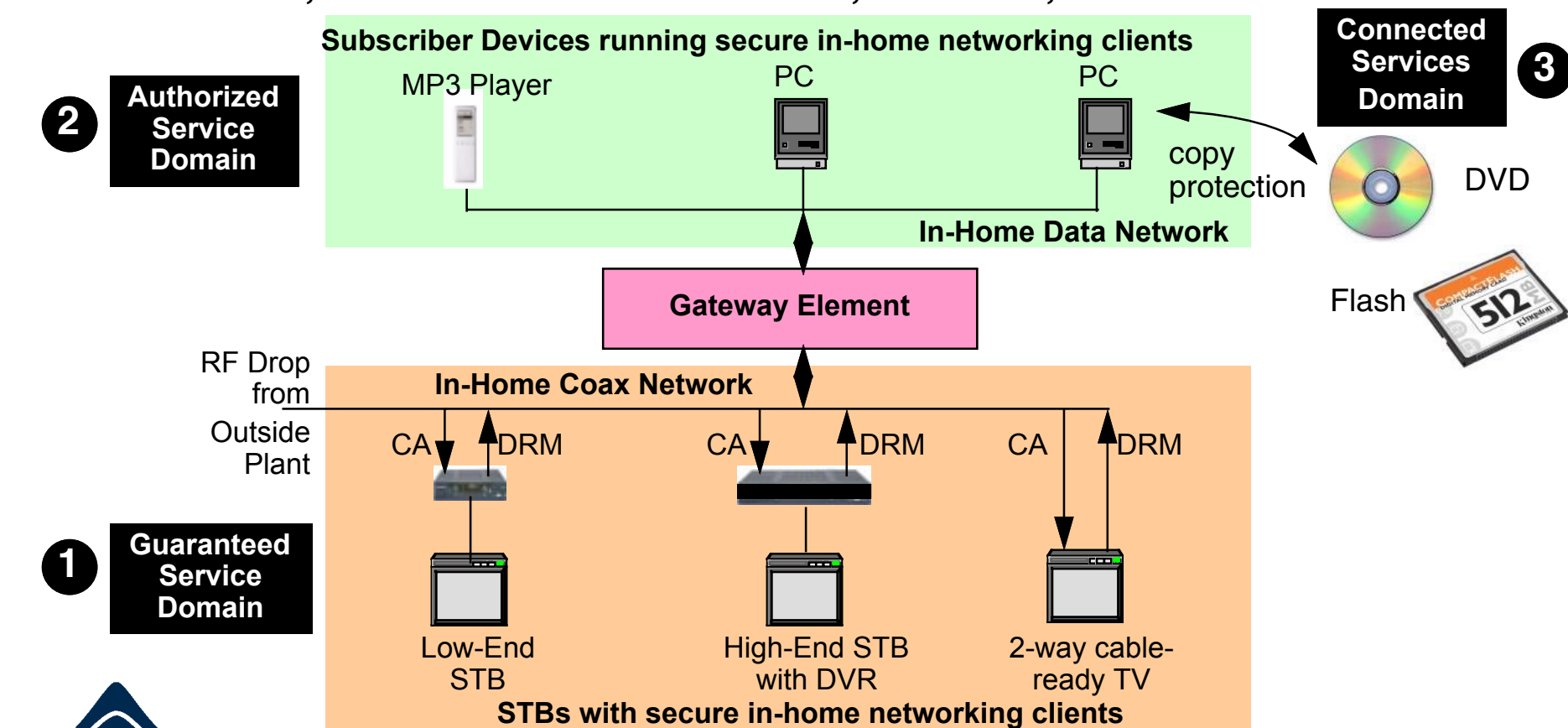
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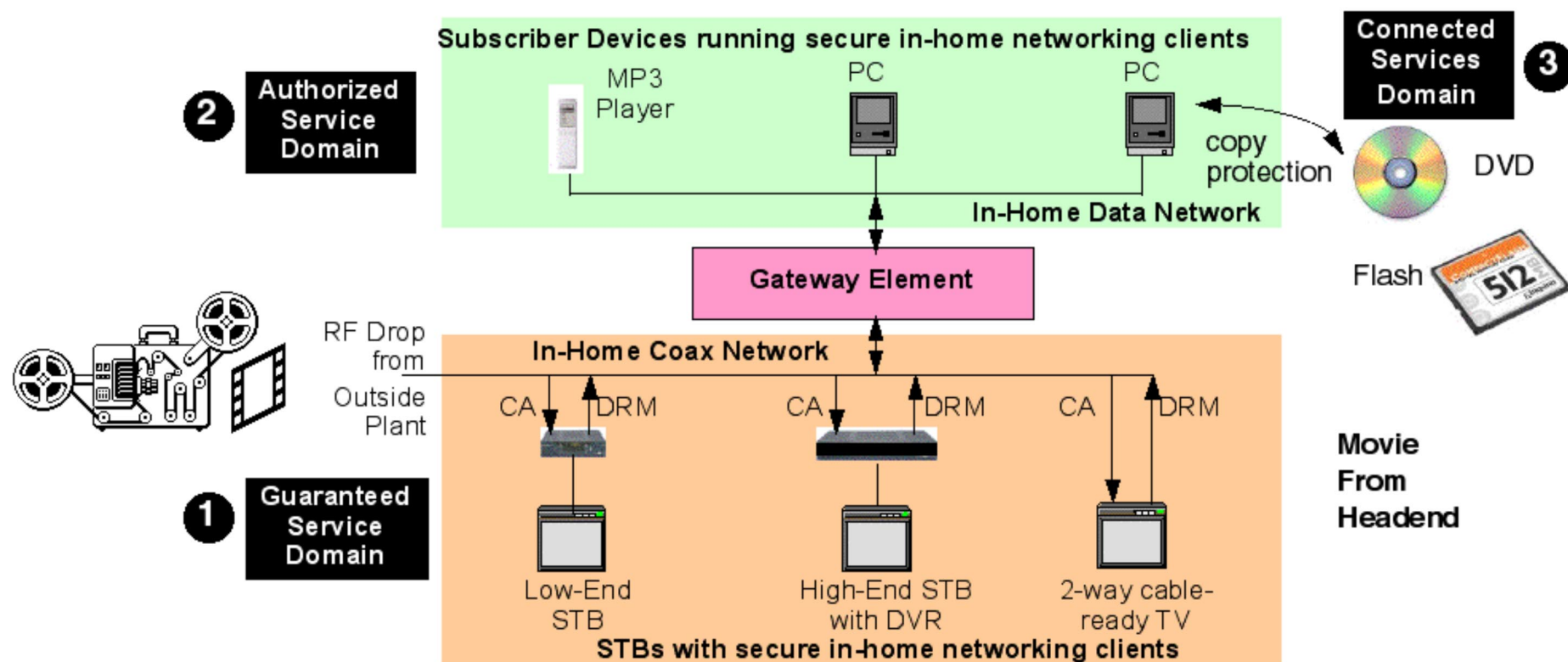
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Valuable content needs protection not only within service provider's domain, but also at the interfaces to, and from, the home network



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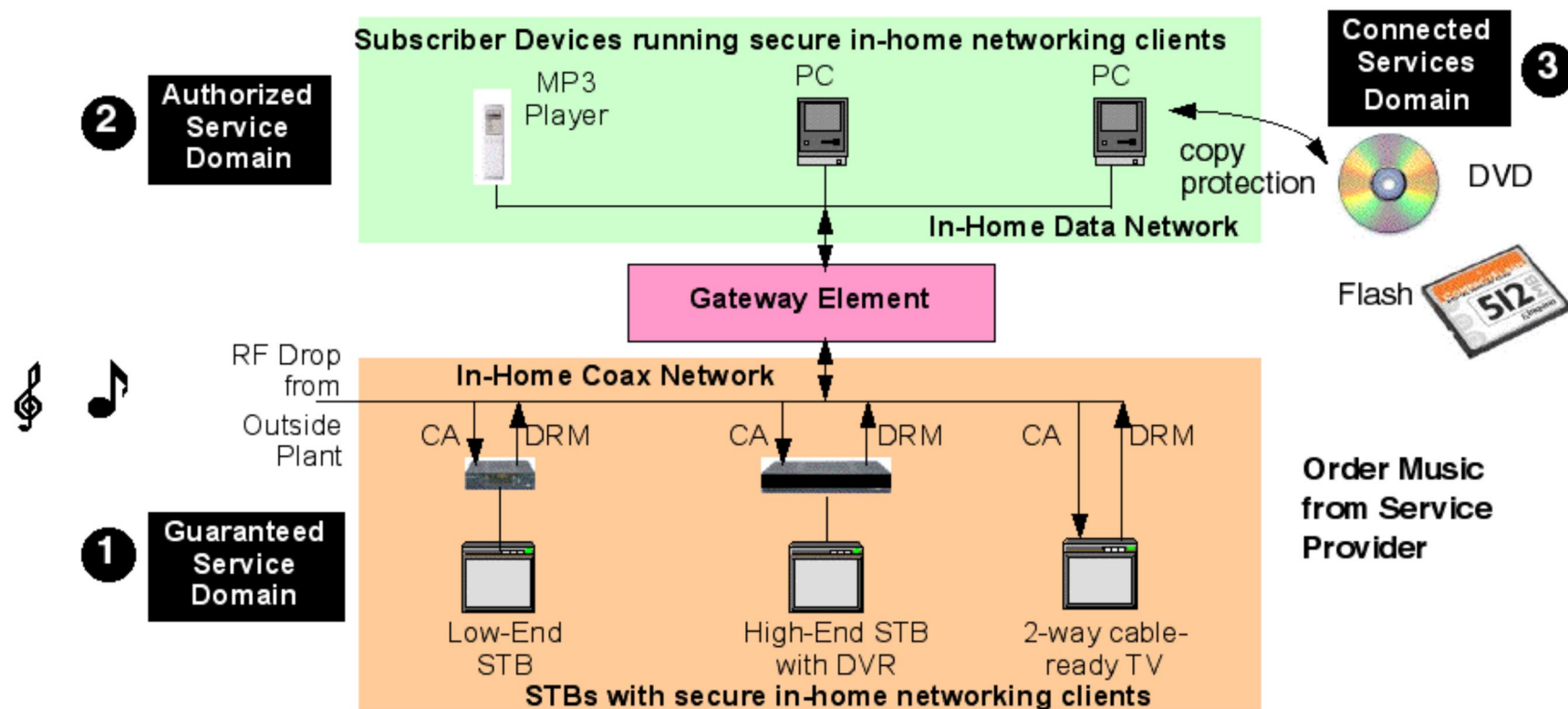
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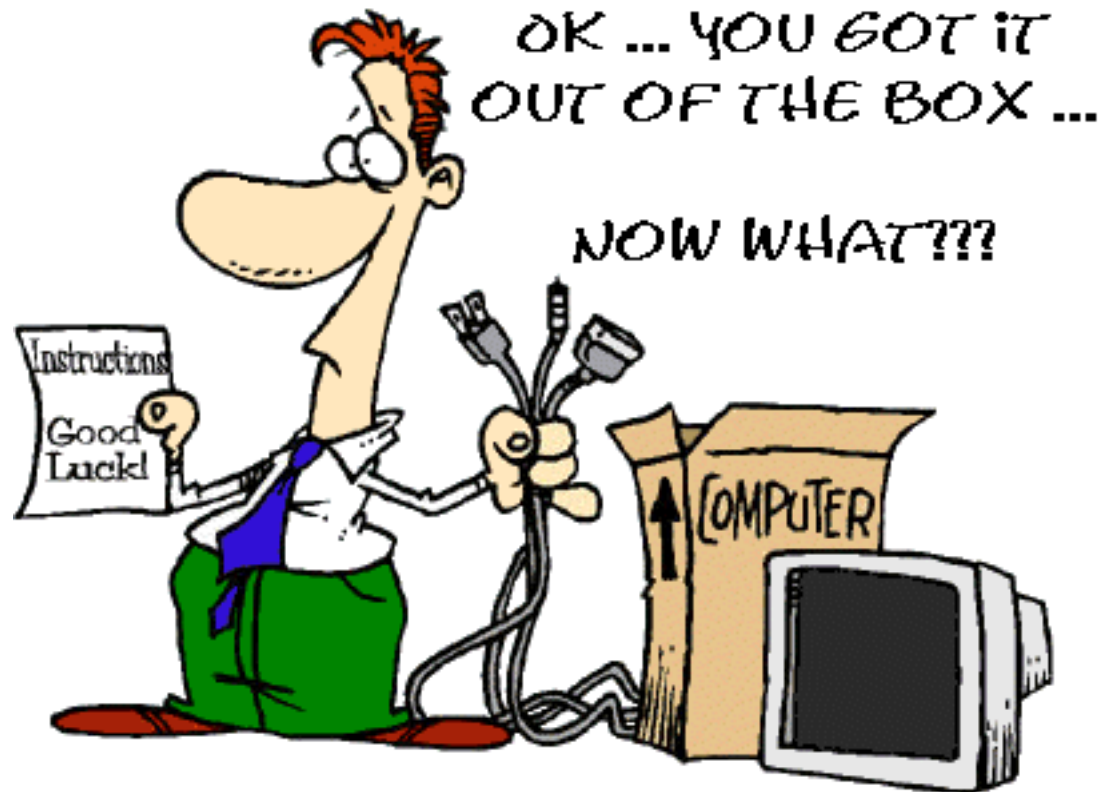
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To be successful, it has to be easy to install, setup, learn to use, & use

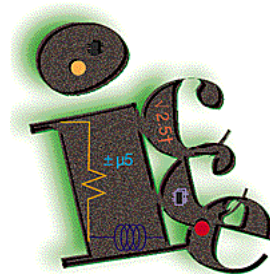


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Evolution

The next generation home network will need to evolve in multiple dimensions in order to meet expected future market demands:

- Wider bandwidth to support multiple HD video, high quality audio, and voice telephony
- QoS to support priority assignments to traffic streams
- Autodiscovery, self configuration, and self healing to facilitate mass market adoption
- Reliability needed to support building automation and security services
- Conditional access, rights management, and copy control to support highly valued entertainment content
- Security



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While there is much ongoing work addressing compatibility & interop, there are too many solutions in competition with each other at all layers in the OSI Stack

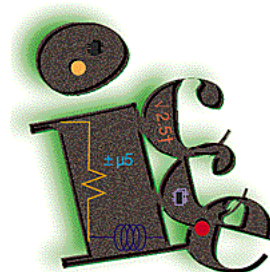
AAC
AC-3
AES
ATRAC3plus

CA
CableCard
Coral Consortium
DES
DisplayPort
DLNA
DRM
DTCP
FairPlay

GIF
HANA
HDMI
HOMEPLUG
HTTP
IEEE1394
IPSec
IPv4
IPv6
ISO-OSI
JPEG
LPCM
MoCA

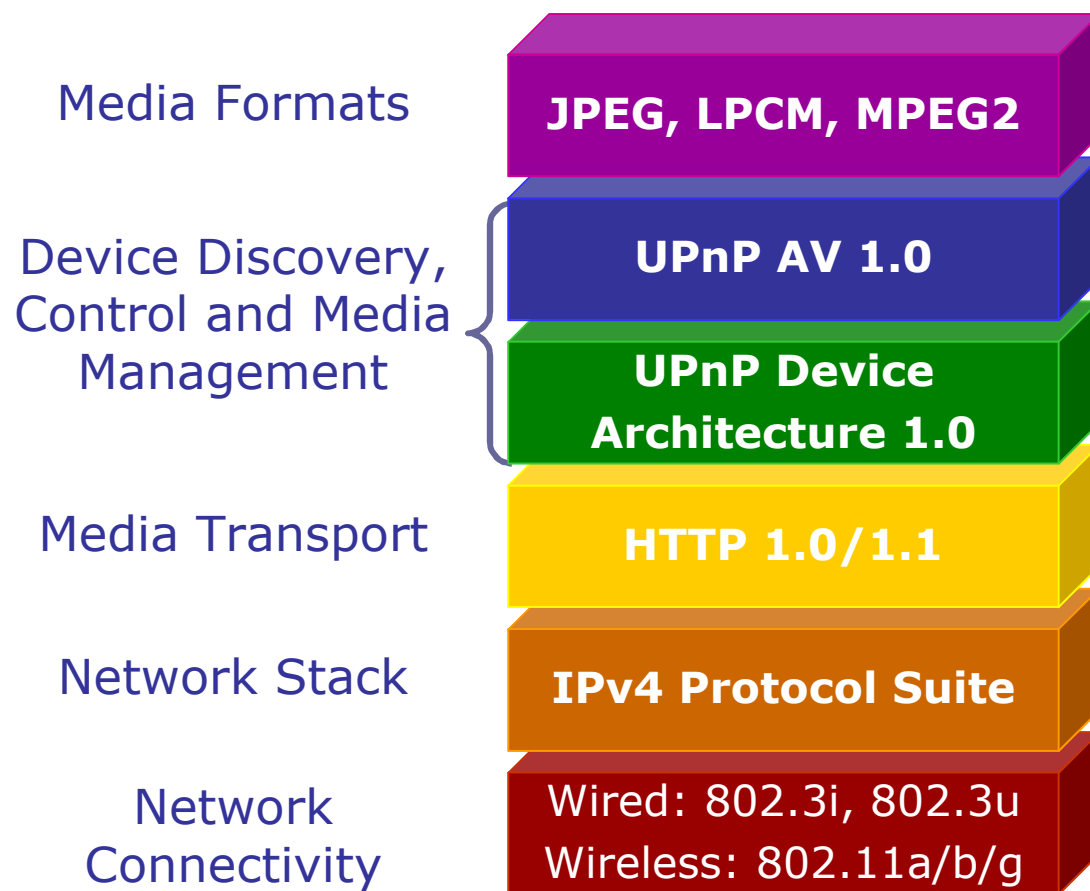
MP3
MPEG
NGNA
PHILA
PKI
PNG
QoS
REAL10
RSA
RTP
TCP/IP
TIFF
UDI

UDP
UPnP-AV
UPnP-DA
USB2
UWB
VESA
WiFi IEEE802.11
WinMedia
WMA9
WMV9

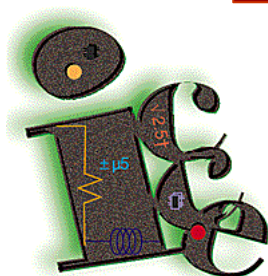


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An example of stack layers that require definition comes from DLNA



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Our panel members will discuss the current state of the art, explore open issues, and share their ideas on the roadmap for development of next generation home networks.

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Thank You and Enjoy the ICCE



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stu@ipaction.com