Imaging Interoperability between CE Devices
– How do we get there?

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Motorola is committed to …

Seamless mobility.

Easy, uninterrupted access to communication, information, entertainment, monitoring and control.

Connected anywhere, anytime, to anything in any way you choose.

Always on. No worrying about networks, devices, protocols, providers.
PHOTO MANAGEMENT EXPERIENCE

Solutions that connect together:
content acquisition, storage, display and sharing

CONNECTMEMOTO
Why seamless mobility is difficult

Competing objectives -- who is our customer?

End users?
Carriers (cable and cellular) ?
Enterprise?

Interoperability

Between devices offered by a carrier
Between different carriers
Mobile device and accessories
Mobile device and other user devices (PC, printers)
Other devices and systems in the ecosystem

Cost

Mobile devices are highly constrained by power consumption, size, and cost

Ease of use

Consistency vs. variety of devices embodied in a mobile device
Interactivity constrained by display and device physical size

Need to prove value of metadata to carriers and end-users
International Standards Enhance Seamless Mobility:

A Network of Connected Devices

- Content Streaming
- Remote Control
- Content Sharing

IN THE AUTO  AT WORK  AT HOME  OUT IN THE WORLD

GSM / CDMA / iDEN / 3G / IPv6
WAP/MMS  J2ME/MIDP/MMAPI
USB, Bluetooth, and WiFi
IP Multimedia Subsystem (IMS)

SymbianOS / BREW / Linux / WinCE
EXIF JPEG, MPEG 2/4/7
DLNA – Media interoperability
UPnP – device interoperability
**Future Directions: DLNA and UPnP**

**DLNA** – DLNA is a framework of interoperability seeking to bridge three domains within the home, PC/Internet, Mobile Devices, and Consumer Electronics, to enhance the distribution of digital media.

The framework consists of Interoperability Guidelines, Key Technologies and Standards:

- **Media Formats** (i.e. JPEG)
- **Media Management** (UPnP AV)
- **Device Discovery & Control** (UPnP 1.0)
- **Media Transport** (HTTP)
- **Network Protocol Suite** (i.e. IPv6)
- **Physical Network** (i.e. 802.11g)

**UPnP** – UPnP is a flexible architecture of standardized protocols designed for zero-configuration, transparent networking, and automatic discovery.

The flexible nature of the architecture supports a wide range of applications:

- **Home Automation**
- **Audio/Video Entertainment**
- **Automobile Networks**
- **Network Peripherals**
- **Printing and Imaging**
Thank You