Introduction of Mobile Imaging and Printing Consortium

http://www.mobileprinting.org

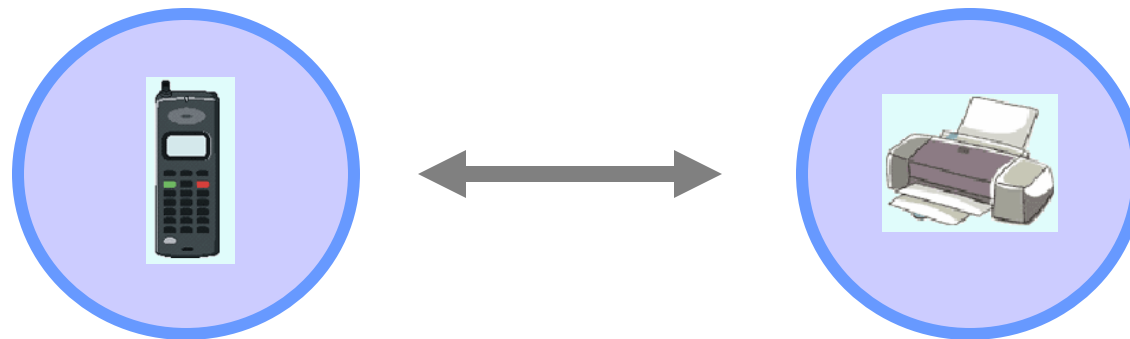October 5, 2006

Masakatsu Endo

SEIKO EPSON CORPORATION
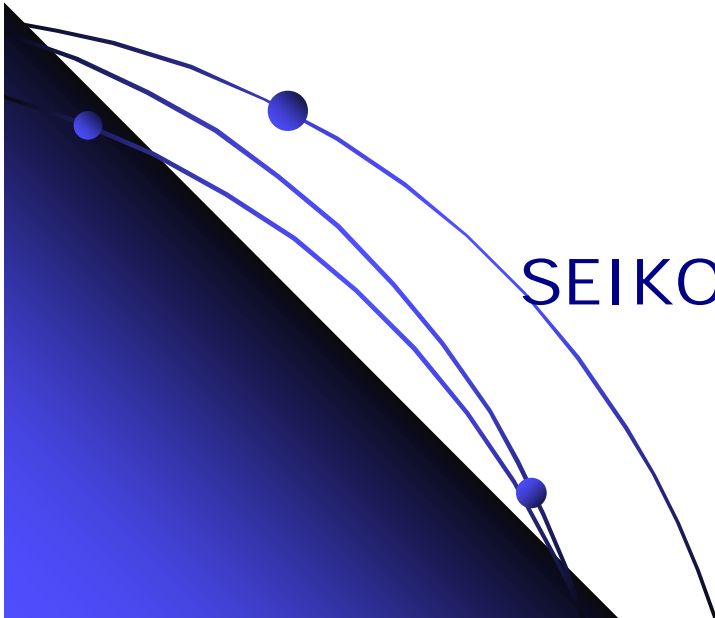
MIPC™

What is MIPC?

In few words:
MIPC (Mobile Imaging and Printing Consortium) promotes direct printing from the Mobile Terminal

Why do we need an industry consortium?
- different transports available (Bluetooth, USB, IrDA, ...)
- different protocols available (BPP, PictBridge, OBEX, ...)
- many use cases possible (home, kiosk, remote, ...)
➔ only when interoperability issues are solved it is possible for the industry to leverage the business potential

Mission and Purpose

"To promote and support the development of implementation guidelines enabling direct printing of images and other content between Mobile Terminals, Home Printers and Kiosks (the "Deliverables");

- to promote such Deliverables and other solutions worldwide to ensure that a broad spectrum of goods and services is developed;

- to ensure interoperability of goods and services through the high-quality and unambiguous Deliverables ;

- to create high customer awareness of, demand for, and confidence in products designed in adherence with the Deliverables."

Consumer Mobile Imaging Fast Facts

- 52 million picture-messaging-capable mobile phones are in use worldwide today – growing to 500M by 2007

- 60% of camera phone users take pictures of family and friends at social gatherings

- Consumers' top two desires for their digital images are to share and print

- "Print at Home" is the preferred method of printing in the United States (63% in 2003)

- 80% of camera phones will support between 2 and 3 megapixels by 2007

- Mobile printing will most likely follow the same path as the Digital Still Camera market, using personal printers at home and those in the office.

Sources: eTrends, Gartner, IDC, Sage

What are the barriers to leverage this business potential?

- Incompatibilities between Mobile Terminals and Printing Devices due to
  - different transports (IrDA, USB, Bluetooth, WiFi, Memory Cards, ...)
  - different protocols on these transports
  - different optional functionarities within these protocols
- Insufficient quality of the print-outs
- Missing or insufficient consumer awareness
- Unclear use cases (when can I do what – and how?)
- Complicated printing procedures, missing convenience and ease-of-use

How does MIPC help?

✔ Implementation guidelines for mobile printing to achieve interoperability

✔ Definition of use cases

✔ Proposals to increase the print quality

✔ Proposals to increase ease-of-use

✔ Create consumer awareness about mobile printing

MIPC achievements & next steps

☑ **Implementation Guidelines V1.0 & 2.0**
- IrDA, Bluetooth, USB, WiFi, Memory Card
- basic, enhanced and pull (photo) printing
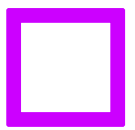- definition of respective use cases

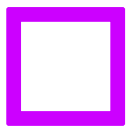☑ **4 Plug-fests held as opportunity for the industry to test interoperability**
- Next MIPC Plugfest will be in Anaheim, California, USA on December 14-15, 2006.

☑ **Product Listing Page:** http://www.mobileprinting.org/products

☐ **Consumer oriented Web Page**

☐ **Implementation Guidelines V3.0 and beyond:**
- document & web printing
- printing quality
- easy print set-up
- adding frames as opportunity for Service Povider & Contents Provider
- adding remote/online printing as opportunity for Mobile Network Operators

Implementation Guideline Versions

- ## Version 1.0
  - Released Jan. 2005
  - Transports/Protocols Supported
    - PictBridge for USB
    - BPP (Basic Printing Profile) for Bluetooth
    - DPOF (Digital Print Order Format) for Memory Card

- ## Version 2.0
  - Released Apr. 2006
  - Additional Transports/Protocols Supported
    - OBEX (Object Exchange) for IrDA
    - UPnP Printer Enhanced for WiFi
  - Added support for Kiosks

What is covered by Imprementation Guidelines?

- Below use cases are covered in Version 2.0
  - Basic Photo Prints
    - Print one or more images with some optional features (copies, paper size, paper type, etc.)
  - Enhanced Photo Prints
    - Some optional features (text annotations, adornments, image or page orientation, etc.) are added to Basic Photo Prints

  - Message Prints
    - Print SMS, MMS, email messages with layout
      - Short Message Service, Multimedia Messaging Service

What is covered by Imprementation Guidelines? (Cont'd)

- **PIM Data Prints**
  - Print personal information (address book, calender enrties, a to do list) with layout
- **Pull Printing**
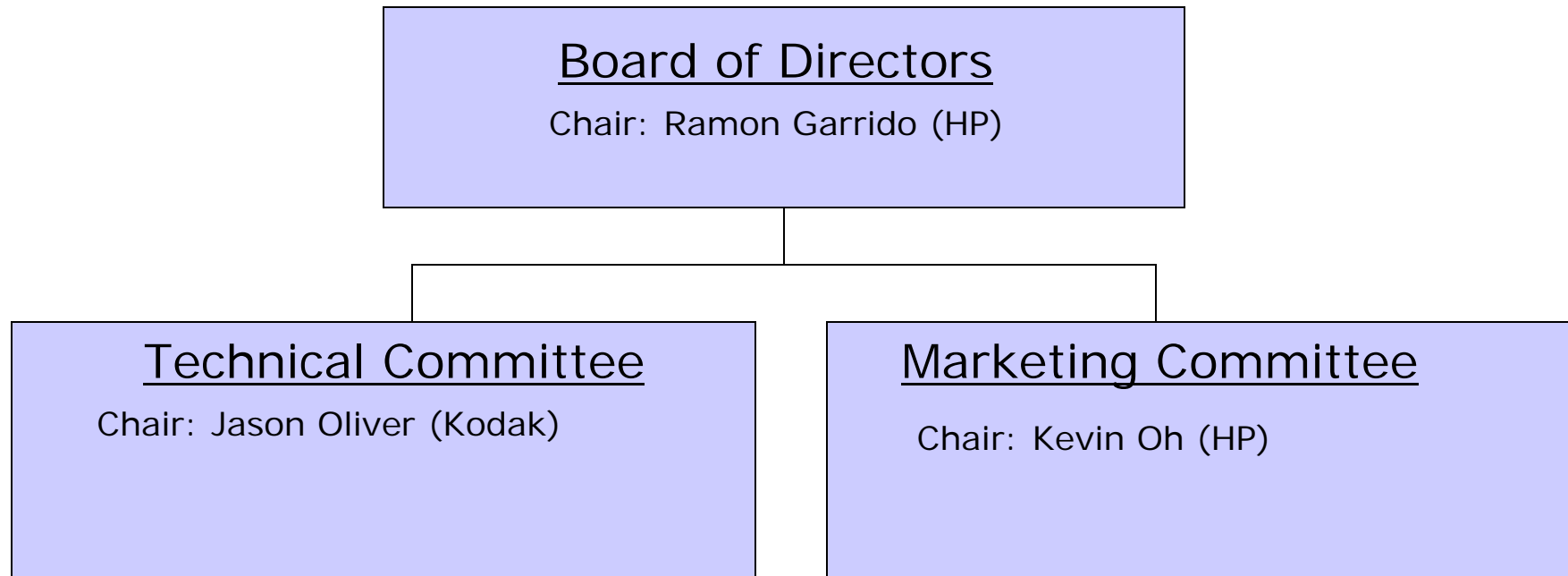 - Printer pulls photo images for printing from mobile terminal

What is covered by Imprementation Guidelines? (Cont'd)

	Basic Photo Prints	Enhanced Photo Prints	Message Prints	PIM Data Prints	Pull Printing
Bluetooth	Yes	Yes	Yes	Yes	No
USB	Yes	Yes	No	No	No
Memory Cards	Yes	Yes	No	No	No
IrDA	Yes	No	No	No	No
WiFi	Yes	Yes	Yes	Yes	Yes

MIPC imprementation Guidelines describes how to implement each technologies in order to maintain interoperability and ease-of-use

MIPC Organization

Board of Directors

Chair: Ramon Garrido (HP)

Technical Committee

Chair: Jason Oliver (Kodak)

Marketing Committee

Chair: Kevin Oh (HP)

- **Deliverables for Implementation**
- **Guideline requirements**
- **Determine if changes are needed to existing standards**
- **Links to standard bodies**

- **USE CASE definitions**
- **Recommend improvements to existing methods**
- **Promotion of MIPC activities**
- **Recruitment of new members**

Technical Committee activity

- Review technology proposals from Technical Committee members to serve the overall MIPC intent
- Ensure that deliverables are
  - high quality
  - unambiguous
- List MIPC compliance requirements
- Create compliance claim process
- Agree if changes are needed to existing standardization
- Links to standard bodies
  - Lobby for needed changes
  - To track standards evolution

Marketing Committee activity

- Study and summarize "USE CASE" for printing from mobile terminals
- Identify issues inhibiting effective camera phone printing solution and provide viable alternatives to MIPC technical committee
- Propose easy & fun printing solution for novice users
- Promote MIPC activity to end-users and mobile imaging related companies
- Recruit companies for MIPC participation

Present MIPC Members

IP Criteria

MIPC is not developing new standard specifications. It's focus shall be to develop an implementation guideline that references existing standards; such standards referenced by the MIPC shall have an IP policy of Reasonable And Non-Discriminatory (RAND) or less restrictive IP policy (examples: Royalty Free, Open Source).

Mobile Terminal

- Included
  - A mobile phone with or without a camera
  - A handheld mobile device having imaging capability and long distance wireless connectivity
    - Has image capture capability or
    - Has image storage capability or
    - Has ability to forward/transfer images and
    - Has long distance wireless connectivity (eg. GSM, WCDMA)
  - PDA with phone function

- Not Included
  - Laptop computer
  - PDA w/o long distance wireless connectivity
  - A digital camera w/out long distance wireless connectivity
  - Any other device not included in the above list of device types

Thank You