DVTS update

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DVTS update

• DVTS Release update
  – Renewal DVTS for Mac + Windows
    • Mac display output finally!
    • OPENGL + core audio version
    • Quick-time version
  – Directory and remote interface
    • Web based DVTS directory and remote control
    • DVTS+ Compatibility

• UMECOT
Multiple format support

• MPEG4, H.264 based format camera support
• USB Camera support
• HDMI support (Using HDMI Capture device) for windows
DVTS Next Step

• Easier Construction and Interface
  – For more usability
  – For non “PC and Gadget” people

• Toward Global Computing
  – Creating “White Box” for Media tools
MANAGEMENT

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Past DVTS & A/V Environment

• Preparing DVTS is not an easy operation
  – Connect each sender/receiver machine
    • configure destination IP address using CUI/GUI
      -> Web based interface & directory service
  – Connecting each equipment
    • using variety of messy cables
• LOTS of experience required
  – about PC, Operating System, network, A/V, etc.
Post DVTS & A/V Environment

- Hardware connectivity
  - How can we simplify connections between equipments
    - Most awkward preparation is the hardware connection with messy cabling
  - How many cables do we need to support every kind of A/V interface?
A/V networking

• Milestone
  1. Replace cables
  2. Build a cable based network
  3. Change protocols to IP based connection
  4. All equipments connect with IP networks and managed by a integrated interface
Solution 1: Unifying cables

- All of the cables replace to Cat.5e UTP cables
  - UTP cables used as balun cable
  - It can connect within the same type of com
  - Various cable types issue can be solved
  - All equipments use same type of cable
Solution 2: Cable based network

- UTP based
  - Whole equipments can connect to a UTP
  - can change connection by a patch panel
Final Solution: IP based network

• All equipments can connect to a IP network
  – Equipments can send/receive data within suitable equipments
    • There’s no cable and location dependencies
    • ex)
      – Microphone -> Camera
      – Camera -> Display
      – Display -> Speakers
DVTS Yellow Page

• “Yellow Page” enabling easy directory service for DVTS
• Web interface to control DVTS
• DVTS+ Interoperability
DVTS’s Web Interface
Web Interface Design Diagram

User-Machine Table

<table>
<thead>
<tr>
<th>User-id</th>
<th>Machine-id</th>
</tr>
</thead>
<tbody>
<tr>
<td>user1</td>
<td>machine1</td>
</tr>
</tbody>
</table>

Make linkage between user and machine.

Choose a machine which you want to use.
Web Interface Design Diagram

User-User Table

<table>
<thead>
<tr>
<th>User-id</th>
<th>Friend-id</th>
</tr>
</thead>
<tbody>
<tr>
<td>user1</td>
<td>user2</td>
</tr>
</tbody>
</table>

Reflect friends’s data in your top page.

- User’s image
- User’s name
- User’s location

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Web Interface Design Diagram

<table>
<thead>
<tr>
<th>Machine-ID</th>
<th>IP-Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine-1</td>
<td>191.113.136.18</td>
</tr>
</tbody>
</table>

Send IP-Address and start to waiting for send or receive command.
Web Interface Design Diagram

- Call
  - IP-Address
  - Send command

Start connect

• Receive command

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Total New Design:
Universal Media Collaboration and Organization Tool
UMECOT
UMECOT environment

- **Global Computing**
  - Manage networked appliances and information inside the network

- **Media Telescope**
  - Extraction of Network, User Activity and Life Trends through Global Computing environment

↓↓ next step ↓↓

- **UMECOT**
  - Based on GC + MT
UMECOT IS

• UMECOT have Tools and Service
  – Tool
    • Everyone can use
      – Ex kids, junior, adult, senior… all age-groups
    • Everyone have
  – service
    • Can connect everything in our life activities
    • All service can use same rule

• Not just a PC
• Not just a TV
• Not just a telephone, skype or polycom.
• But an organization box to interact with our life.
UMECOT Project First Step

• Development of UMECOT
  – Television embedded UMECOT
    • “UMECOV”
    • To replace (add) features of TV in the living room
  – UMECOV interface and service
    • Easy Operation
    • Fit to Users’ lifestyle
  – Target user
    • Elder senior and wood-stock (over 51)
Initial version: Joint Project

• Orion Electric co., LTD
  – Television manufacturer in Japan
    • Monitor embedded type (Television Type)
      – 19 inch Television
    • Set Top Box for Television & monitors
      – Using traditional “TVs” and “Monitors”
      – Using it as a signage engine
UMECOV Prototype
UMECOV Specification

- CPU: Intel CE4100
  - Intel Architecture TV Processor
- Flexibility:
- Power supply, Tuner and UMECOT main boards are designed as a modular interface (for international compatibility)
- 4 USB2.0, Ethernet Terminal (RJ-45)
  - USB Camera, USB HDMI Capture device, RGB Converter
  - Keyboard, Mouse
  - HDD (for recording, etc)
  - ...
Easy Remote

Volume  Back  POWER

Channel  Home  TV

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Software

- Linux Operating system
  - Linux for CE4100
- Digital TV Program
  - ARIB Broadcasting system for Japanese Market
- Web KIT Base Browser
  - HTML5
UMECOT SERVICE

• A lot of Service that interact with life
  • A-YO.info
    – alarm communication
    – sync friend’s ‘Good morning’ and ‘Good night’
  • Eat navi
    – food-interest global SNS platform
    – Allow for communication between different foreign users
    – Sharing of food experiences and taste preferences
    – Creating a global food community
  • COCOTAN
    – life log tools to log experience very easily.
Future

• Trial service start at end September
  In Echizen City in JAPAN.
    – Internet shopping and delivery service.

• Service starts: January 2012
  – Internet shopping and delivery
    for elder people with difficulty
  – Care Support for elder people
Collaboration

• IT ACCESS
  – TV Software Development
• INTEL and INOTEC
  – UMECOV CPU Development

etc.
INFOSHARE : A Digital Signage