# use case: Advanced IPTV Services

## W3C Web on TV Workshop

Day1 - 2 September 2010 Session5

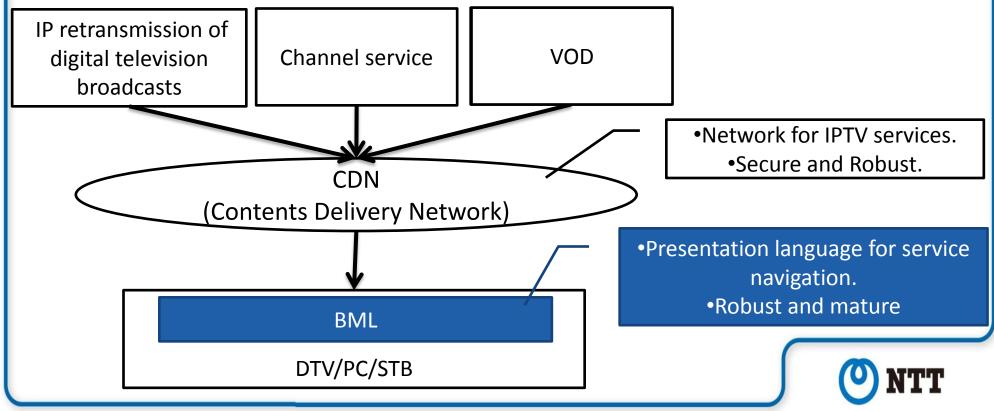
Panel on proposals for smarter integration of Web and TV from research viewpoints

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# **Background: Current Japanese IPTV**

 IPTV service are based on standard specifications, defined by IPTV Forum Japan.



# BML(Broadcast Mark-up Language) and LIME

- Contents description language based on Web standards(e.g. XHTML1.1)
- "BML for IPTV" has approved as the international standard.

  ITU-T Rec H.762 "Light-weight Interactive Multimedia Environment for IPTV" (LIME)
- LIME has features for IPTV(comparing main features with HTML as following)

Category	BML	HTML
Focus navigation	remote control navigation( e.g. "nav-index" )	mouse and keyboard
Layout	absolute position(browser independent)	browser dependent
Element type	selected	many
Media type	selected	many
Function	Prepared function for IPTV service (e.g. service registration, control VOD contents)	add-on for each browser



### **Use Case in advanced IPTV Services**

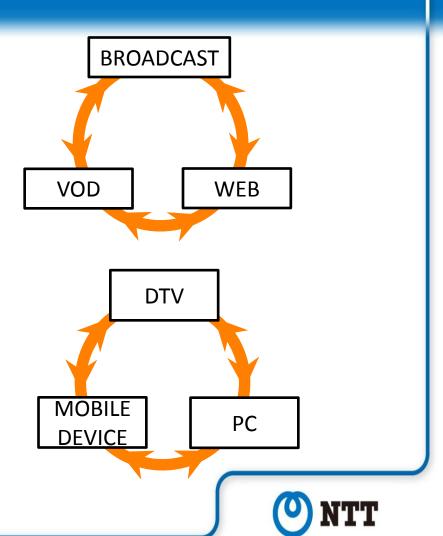
 Combination Service consisting of BROADCAST, VOD, and WEB applications

#### e.g.

- transition from BROADCAST to VOD
- affiliate advertising(WEB) for VOD
- Three-screen linkage (DTV, PC, MOBILE DEVICE)

#### e.g.

- Sharing of resume and bookmark data
- remote reservation



# Our objective and concern for advanced IPTV service

#### **Objective**

Smart integration IPTV service and web service on multiple device

#### <u>Concern</u>

- Performance on resource-limited embedded devices
  - trade-off problems between performance and functional capability
  - How should markup-language be profiled?
- Security
  - What kind of requirements are needed considering the case that secured contents (e.g. video content protected by DRM) and unsecured contents(e.g. open internet content) are processed on the same terminal platform.