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UMID Applications in FIMS

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Outline

- Introduction to FIMS
- Introduction to UMID
- UMID Applications in FIMS
- Conclusions

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Introduction to FIMS

(Framework for Interoperable Media Services)

NAB 2012

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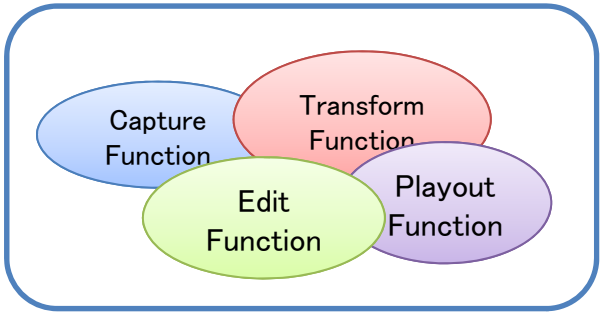
Traditional Systems



- Functions are Tightly Coupled.
  - Optimized to the specific application
  - Good cost/performance ratio
  - High efficiency

But ...

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Problems of Traditional Systems

- Difficult to replace or update parts of system
  - Change parts of system requires knowledge of the entire system.
- Difficult to transplant parts of system to other system
  - Taka comparable amount of time and money for building a new system or making significant modifications.

SOA approach can solve these problems.

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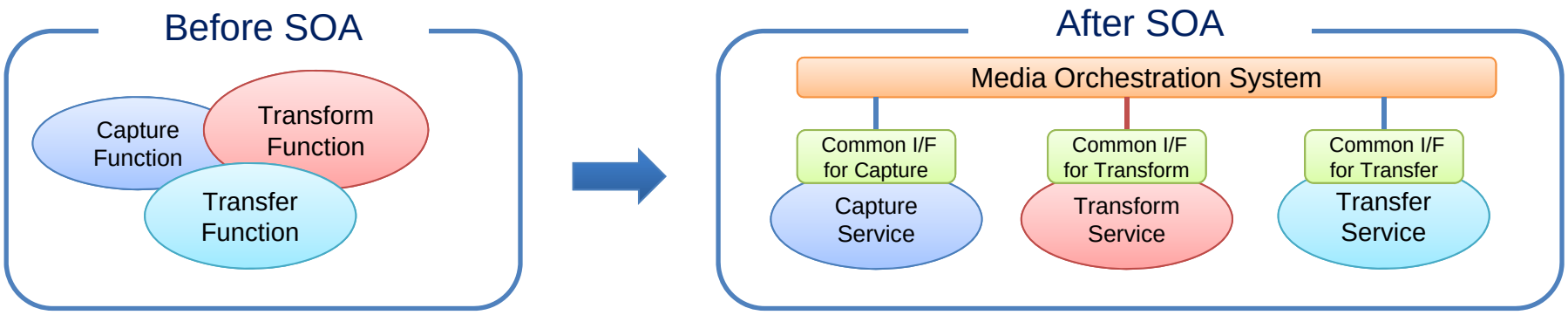
Service Oriented Architecture (SOA)



In order to maximize the potential of SOA, standardization of the Industry common interfaces is essential.

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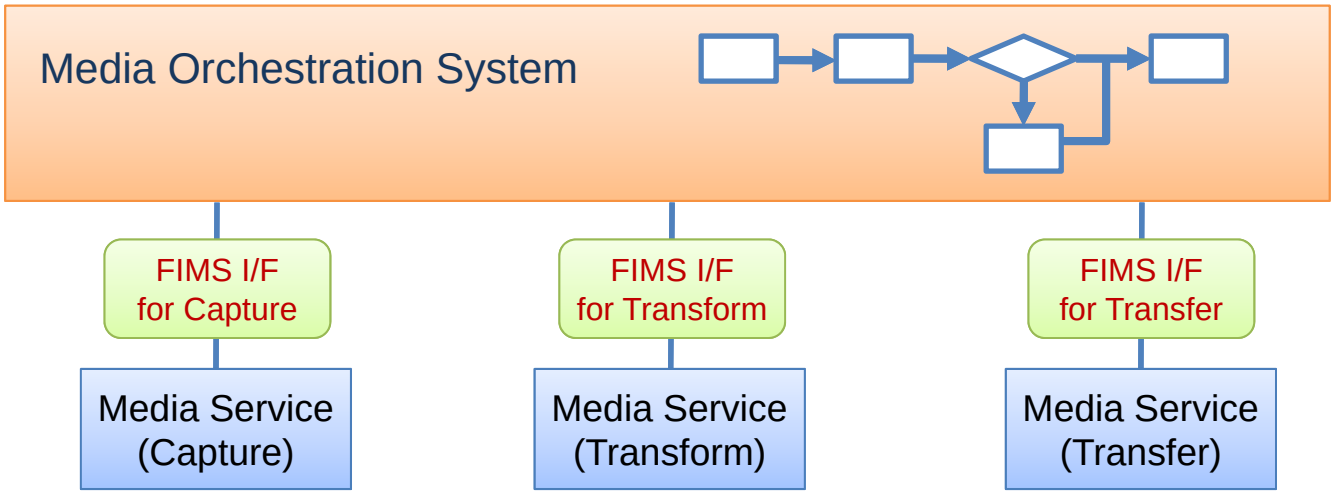
What is the FIMS Activity?

- *Define interoperable media service interfaces between*
  - Media Orchestration Systems
  - Media Services



FIMS is the Solution for Media

- FIMS is a SOA framework applied to Media
- FIMS works more at the business or workflow level
- FIMS specifies the interfaces to services
- FIMS has support from across the industry (Users, Vendors, SI)
- FIMS understands media
  - High-bandwidth, large file media
  - Long running processes
  - Format (Codec, Container) independent
  - Metadata

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FIMS 1.0: FIMS Technical Board

- FIMS Base Framework
- Three Services
  - Capture
  - Transfer
  - Transform
- SOAP / RESTful agnostic
- Next Steps
  - Completion of AMWA & EBU Technical Review for Formal Release
  - Additional Service Interfaces

FIMS 1.0 Download link

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FIMS Business Board

- A group of users
  - Ad-Id, AMWA, BBC, Bloomberg, CBC, EBU, HBO, ITV, MLB, MTV, NBC, NFB, RAI, RedBee Media, Turner, Viacom
- Scope
  - Identify business needs
  - Prioritise FIMS work
- Second RfP (Request for Proposal) for FIMS Phase 2
  - Respondents
    - BBC, Bloomberg, Hessische Rundfunk, IRT, NBCU, RAI, RedBee Media, Sony, Tosca-MP, TBS, Wells Fargo
  - Proposals
    - resource estimation/reservation, IP stream capture, forensic marking, media asset registration / discovery / update service, proxy browsing, editing distribution, metadata enrichment, customisation
  - Set as priorities
    - **MAM/repository Services**
    - **Quality Control Services**

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FIMS – NAB 2012

DEMO SPONSORS

Bloomberg TELEVISION

CUBE-TEC International

IBM

SONY

Triskel Software Development Experts

FIMS SUPPORTERS

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Demonstrations on the FIMS booth

Bloomberg powered by IBM and Triskel

- FIMS Real World Implementation at Bloomberg (framework, dashboard)
- FIMS Compliance Best Practices (transcoding, data mover, orchestration)

Cube-Tec

- One step into FIMS future: Quality Control Services for Media Factories
- Workflow engine, framework for multiple QC-Engines, BPMN 2.0

Sony

- Multi-Vendor Interoperability Demonstration Video
  - ✓ Orchestration (Sony Media Backbone Conductor) with Services (Cinegy, Cube-Tech, Avid, RadiantGrid, Sony)

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Where else can you find FIMS at NAB?

- IBM Booth N5223
- SONY Booth C11001
- VSN Booth N708 and N408
- Harris Booth N2502

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FIMS is an Opportunity

- Service Vendor
  - Service Re-Use
  - Fast Introduction to the Market
- System Integrators (SI):
  - Maximize SOA Advantage: Agility
  - Easier Update and Maintenance
  - Flexible Selection of Media Services
- End Users:
  - Not Dependent on Specific Vendors
  - Risk Reduction

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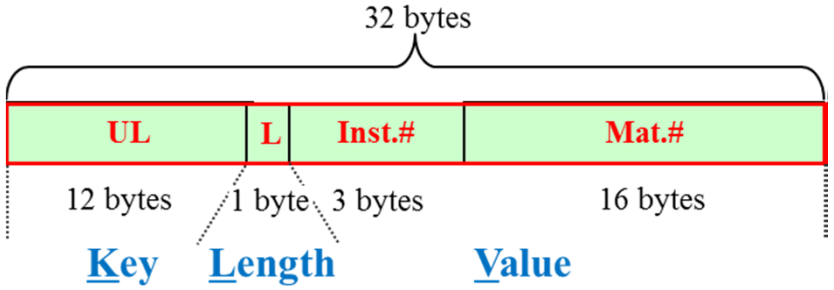
Introduction to UMID

(Unique Material IDentifier)

What is the UMID ?

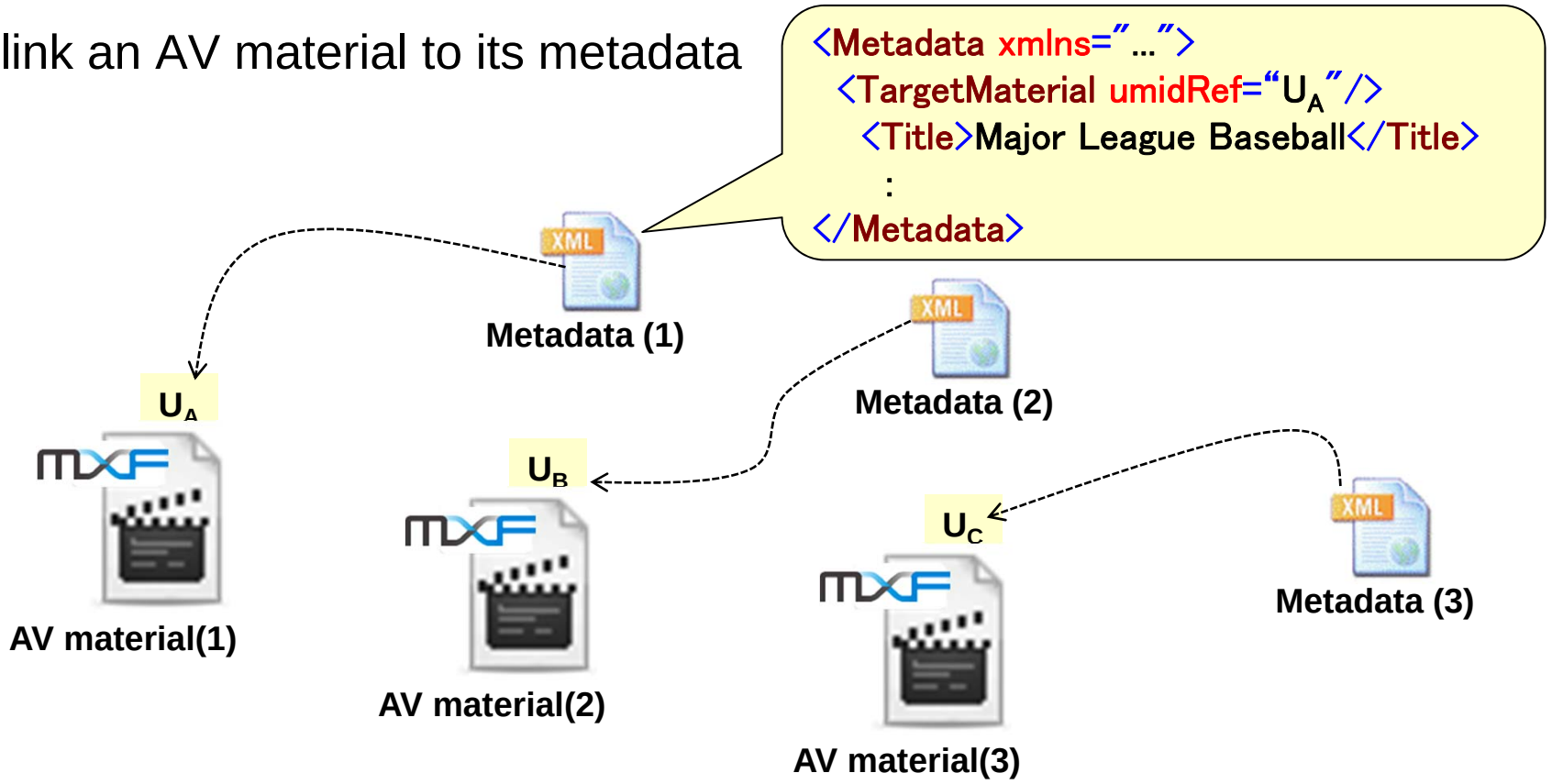
- Unique Material IDentifier
  - Specified in SMPTE ST 330 & RP 205
    - Originally standardized in 2000
  - Composed of four parts
    - Universal Label (**UL**): identifying as UMID (**Key**)
    - Length (**L**): Length in byte that follows, Fixed to 13_h (**Length**)
    - Instance Number (**Inst.#**): indicating “instance”
    - Material Number (**Mat.#**): Globally unique value

    } (**Value**)



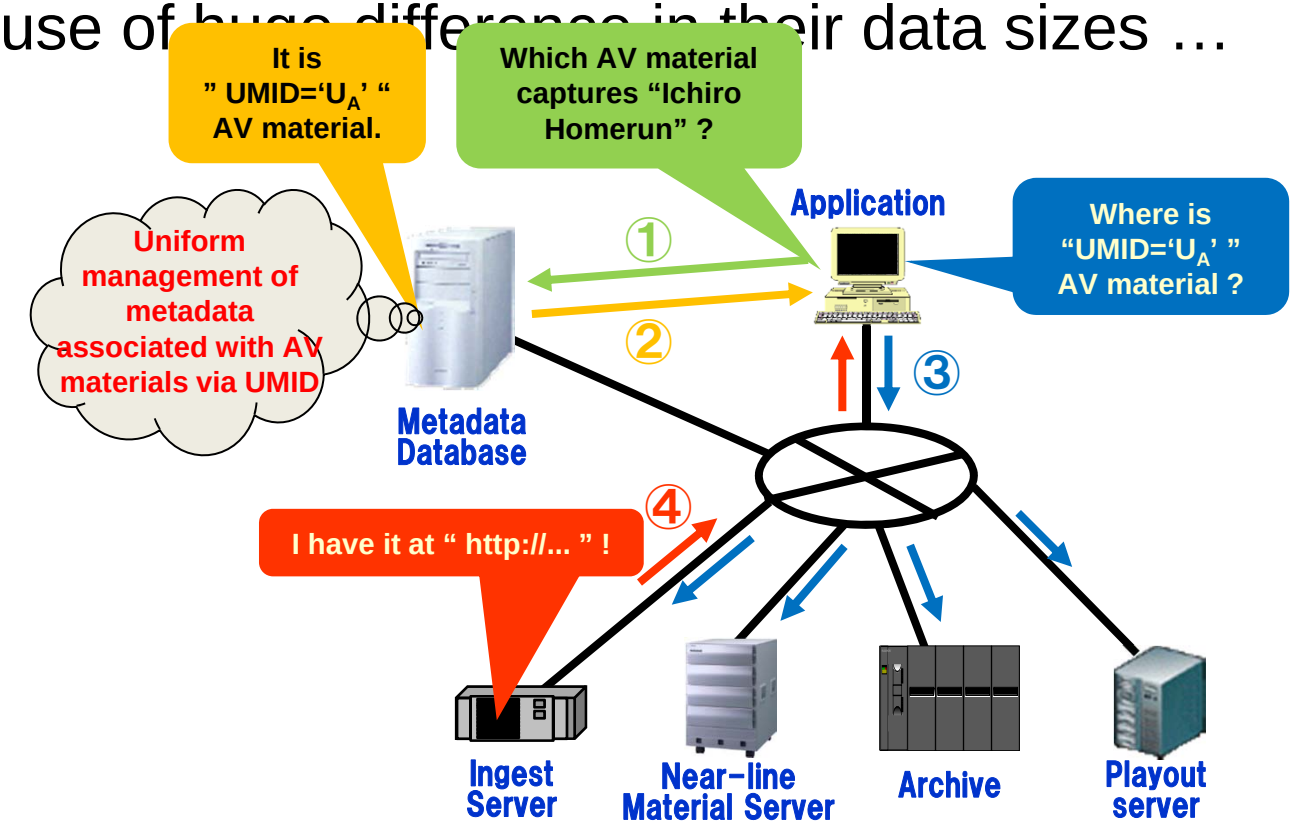
What is the UMID For ?

- To link an AV material to its metadata



UMID based AV Material Search

- Because of huge difference in their data sizes …



UMID based AV Material Search

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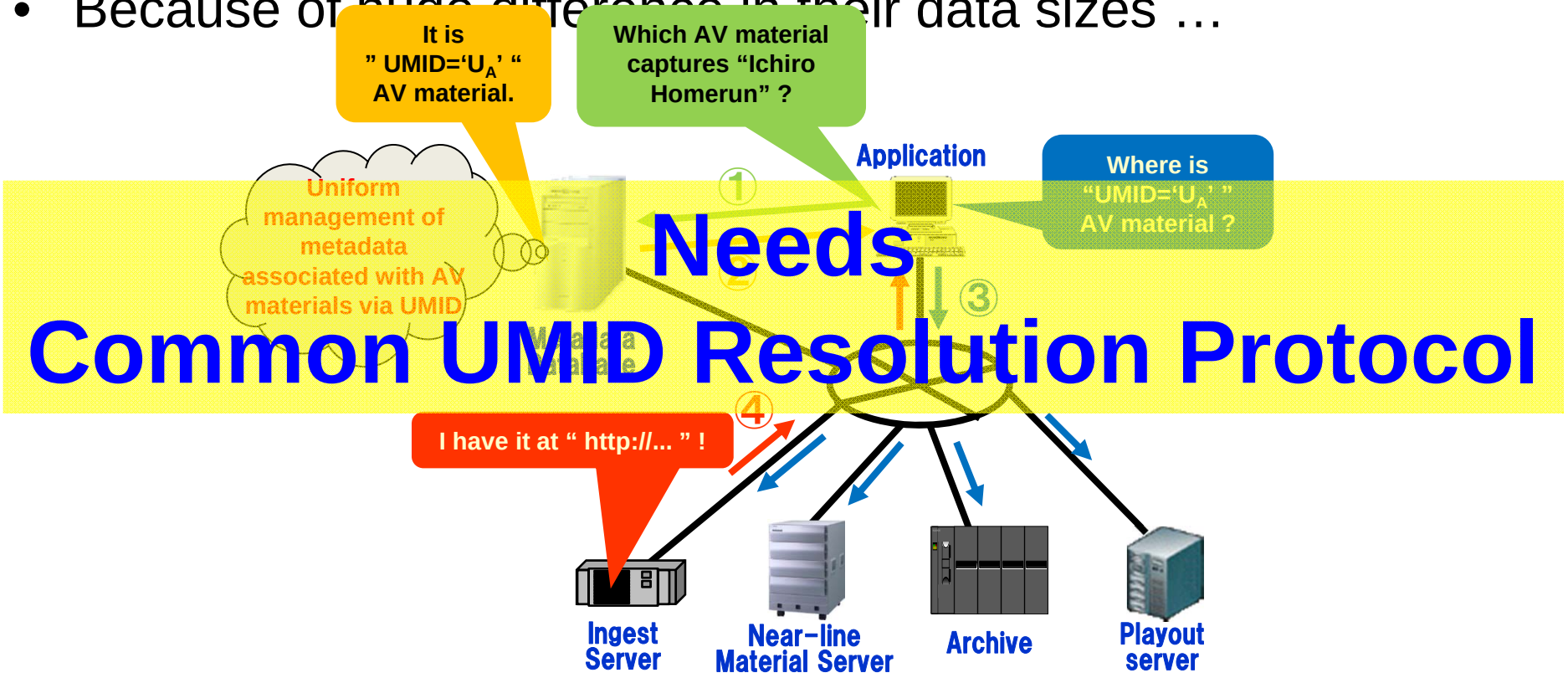

To Make it Happen in Practice

- UMID Resolution Protocol needs to be industry standardized
  - Where is “UMID=‘U_A’ ” AV material ?
  - Do you have “UMID=‘U_A’ ” AV material ?
- UMID Applications Principles need to be explicitly provided
  - Fundamental rules on the UMID based AV materials managements

Demanded a New Project in SMPTE!

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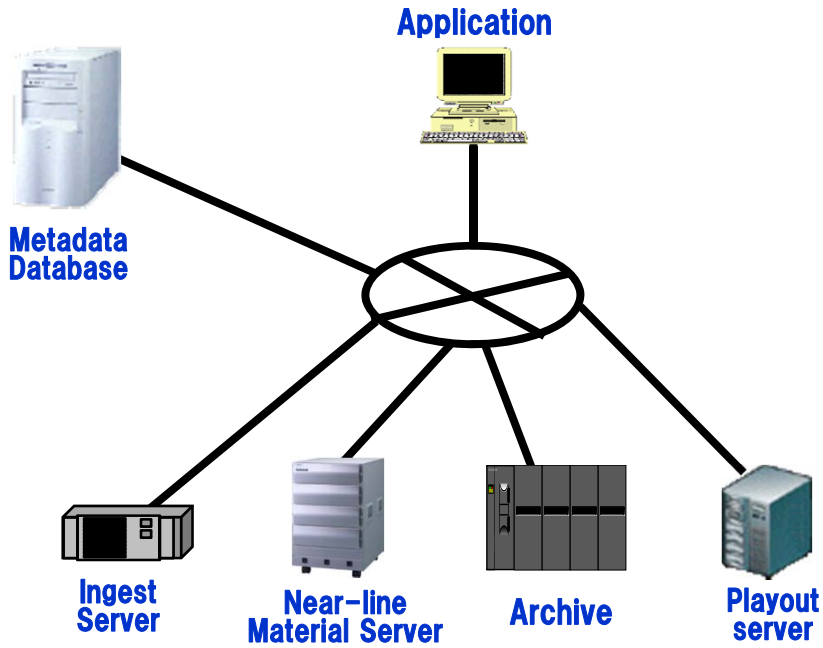
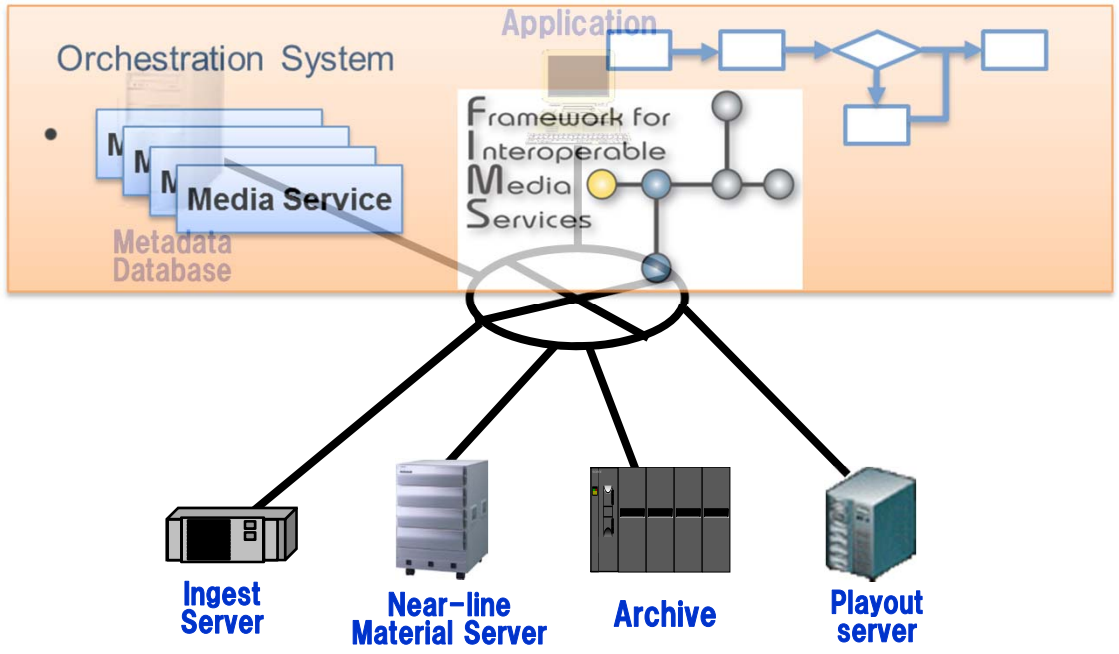
UMID Applications in FIMS

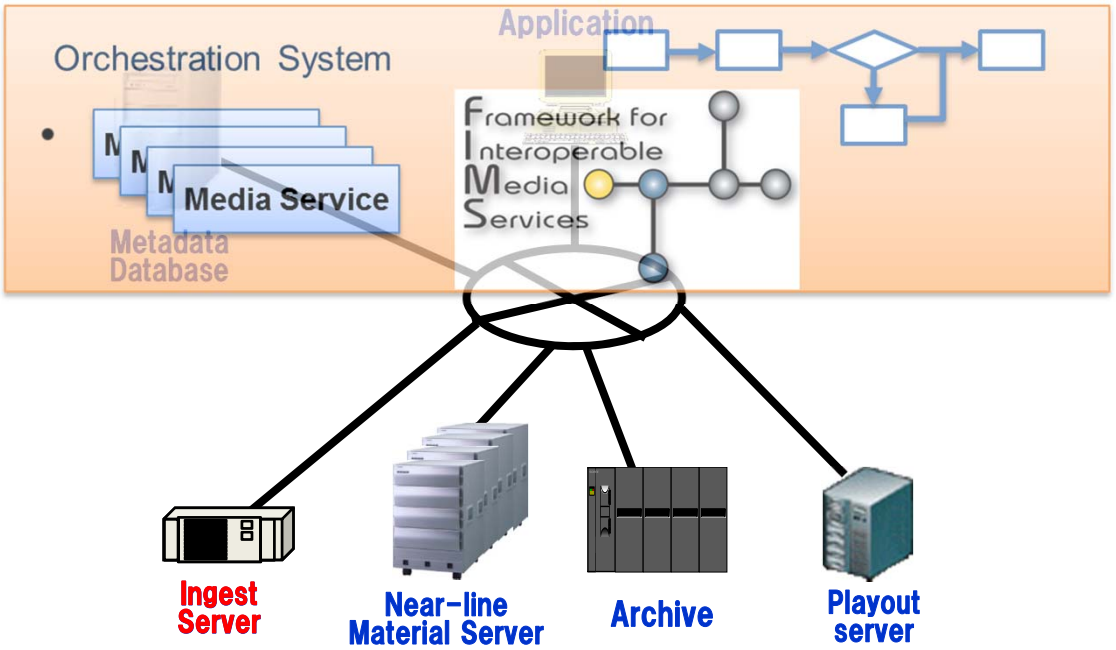
When Generalized…



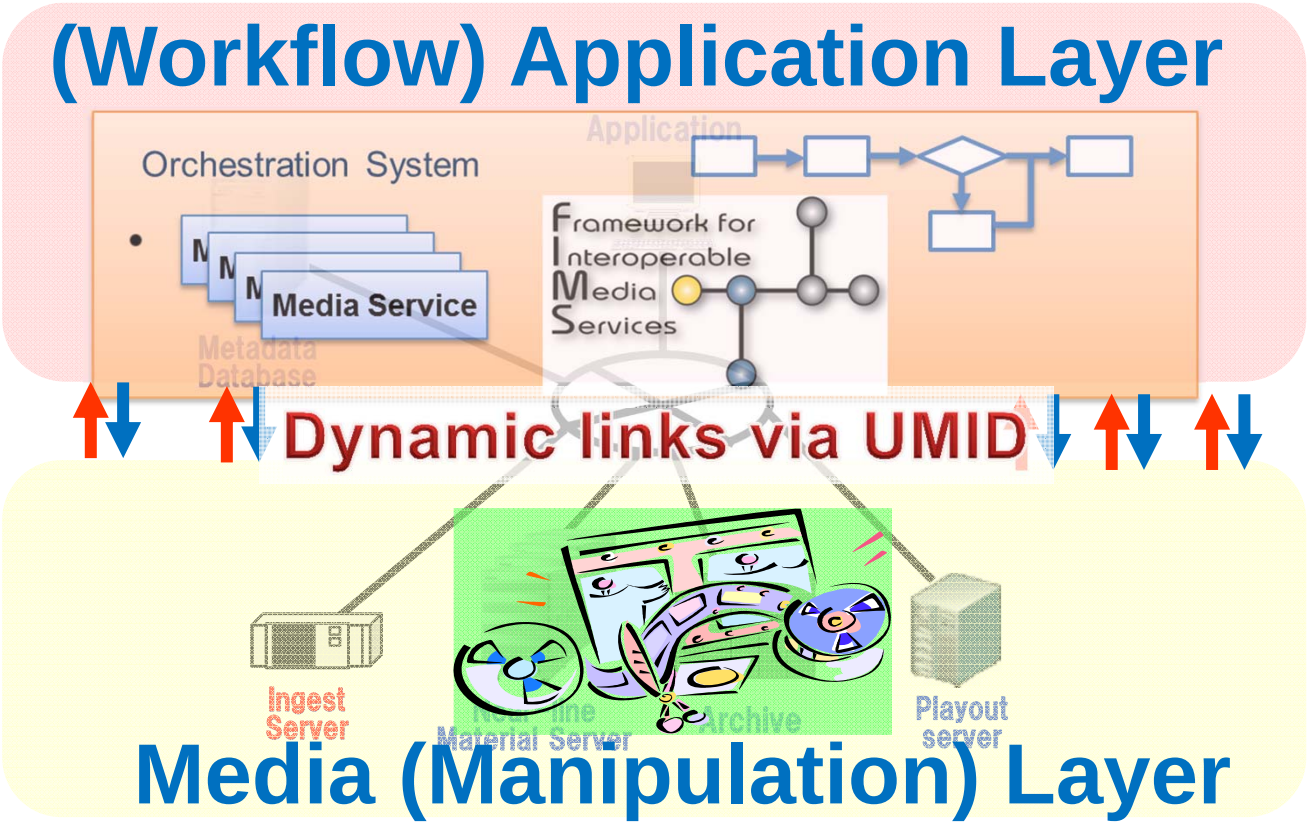
When Generalized…



When Generalized…



When Generalized…



Who's Problem?

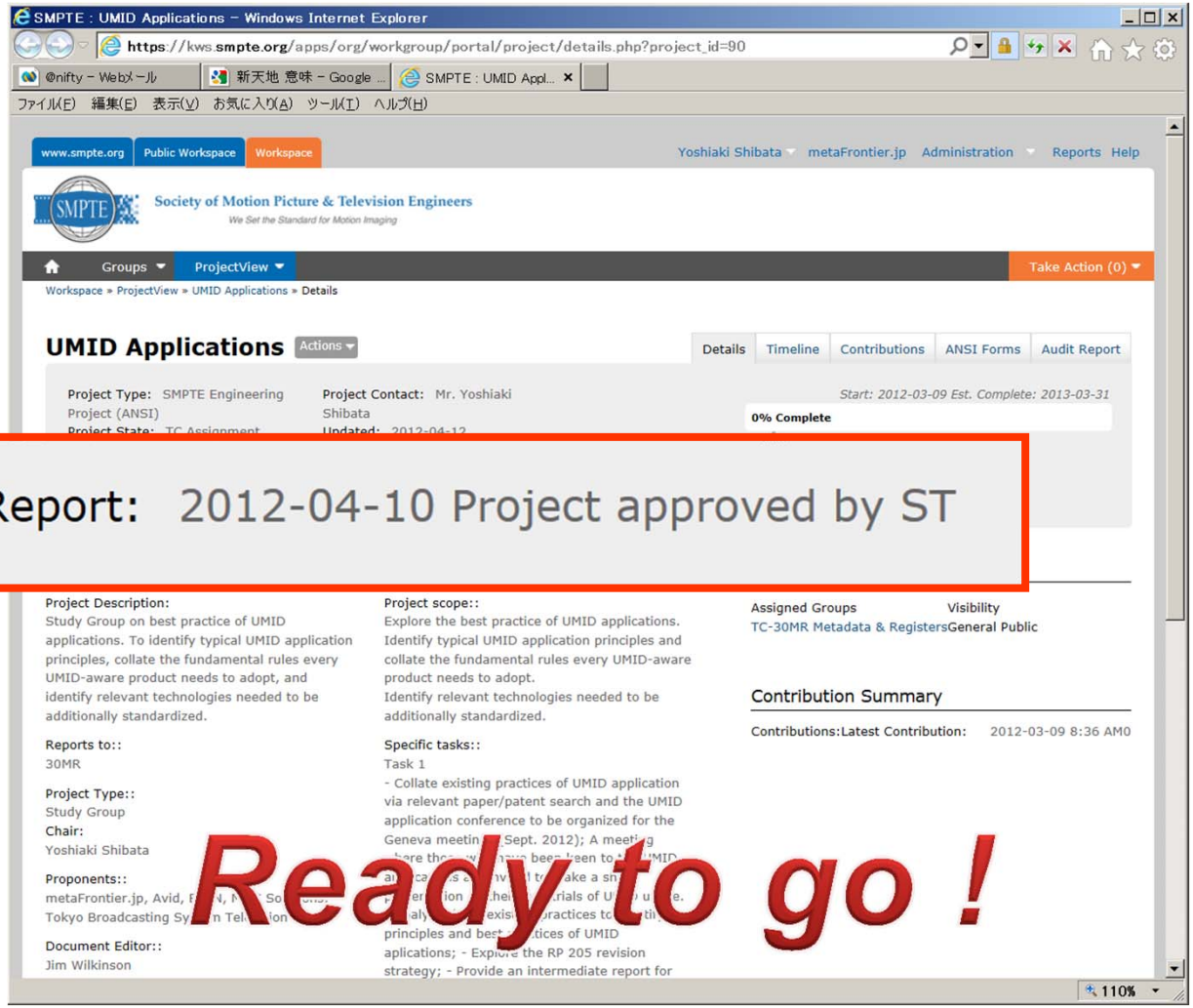
- Thanks to "anyURI", FIMS has already addressed it!
  - Today (URL style)

```
<bms:bmContent xmlns:bms="http://base.fims.tv" ... >
                    :
        <bms:file>http://www.foo.com/bar/media/myClip.mxf</bms:file>
                    :
</bms:bmContent>
```

  - Tomorrow (URN style)

```
<bms:bmContent xmlns:bms="http://base.fims.tv" ... >
                    :
        <bms:file>urn:smpte:umid:060a2b34.01010105.01 … </bms:file>
                    :
</bms:bmContent>
```

Next, SMPTE's turn !


SMPTE : UMID Applications – Windows Internet Explorer
https://kws.smpte.org/apps/org/workgroup/portal/project/details.php?project_id=90
www.smpte.org
Public Workspace
Workspace
Yoshiaki Shibata
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Administration
Reports
Help
Society of Motion Picture & Television Engineers
We Set the Standard for Motion Imaging
Groups
ProjectView
Take Action (0)
Workspace » ProjectView » UMID Applications » Details
UMID Applications
Actions
Details
Timeline
Contributions
ANSI Forms
Audit Report
Project Type: SMPTE Engineering Project (ANSI)
Project Contact: Mr. Yoshiaki Shibata
Start: 2012-03-09 Est. Complete: 2013-03-31
0% Complete
Progress Report: 2012-04-10 Project approved by ST
Project Description:
Study Group on best practice of UMID applications. To identify typical UMID application principles, collate the fundamental rules every UMID-aware product needs to adopt, and identify relevant technologies needed to be additionally standardized.
Reports to::
30MR
Project Type::
Study Group
Chair:
Yoshiaki Shibata
Proponents::
Document Editor::
Jim Wilkinson
Project scope::
Explore the best practice of UMID applications. Identify typical UMID application principles and collate the fundamental rules every UMID-aware product needs to adopt.
Identify relevant technologies needed to be additionally standardized.
Specific tasks::
Task 1
- Collate existing practices of UMID application via relevant paper/patent search and the UMID application conference to be organized for the Geneva meeting (Sept. 2012); A meeting
principles and best practices of UMID aplications; - Explore the RP 205 revision strategy; - Provide an intermediate report for
Assigned Groups
Visibility
TC-30MR Metadata & Registers
General Public
Contribution Summary
Contributions:Latest Contribution: 2012-03-09 8:36 AM0
Ready to go !
110%

Conclusions

- FIMS as SOA Framework for M&E Industry
  - The FIMS 1.0 Specifications are almost ready !
  - MAMs and QC will be tackled for FIMS Phase 2

- UMID enhances FIMS
  - "Flexible Linking" between Application and Media layers
  - Further work needed in SMPTE

which will begin shortly !

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LINKEDIN FIMS SOA USER GROUP

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