

# Tripcom EAI Use Case



David de Francisco Marcos  
TID

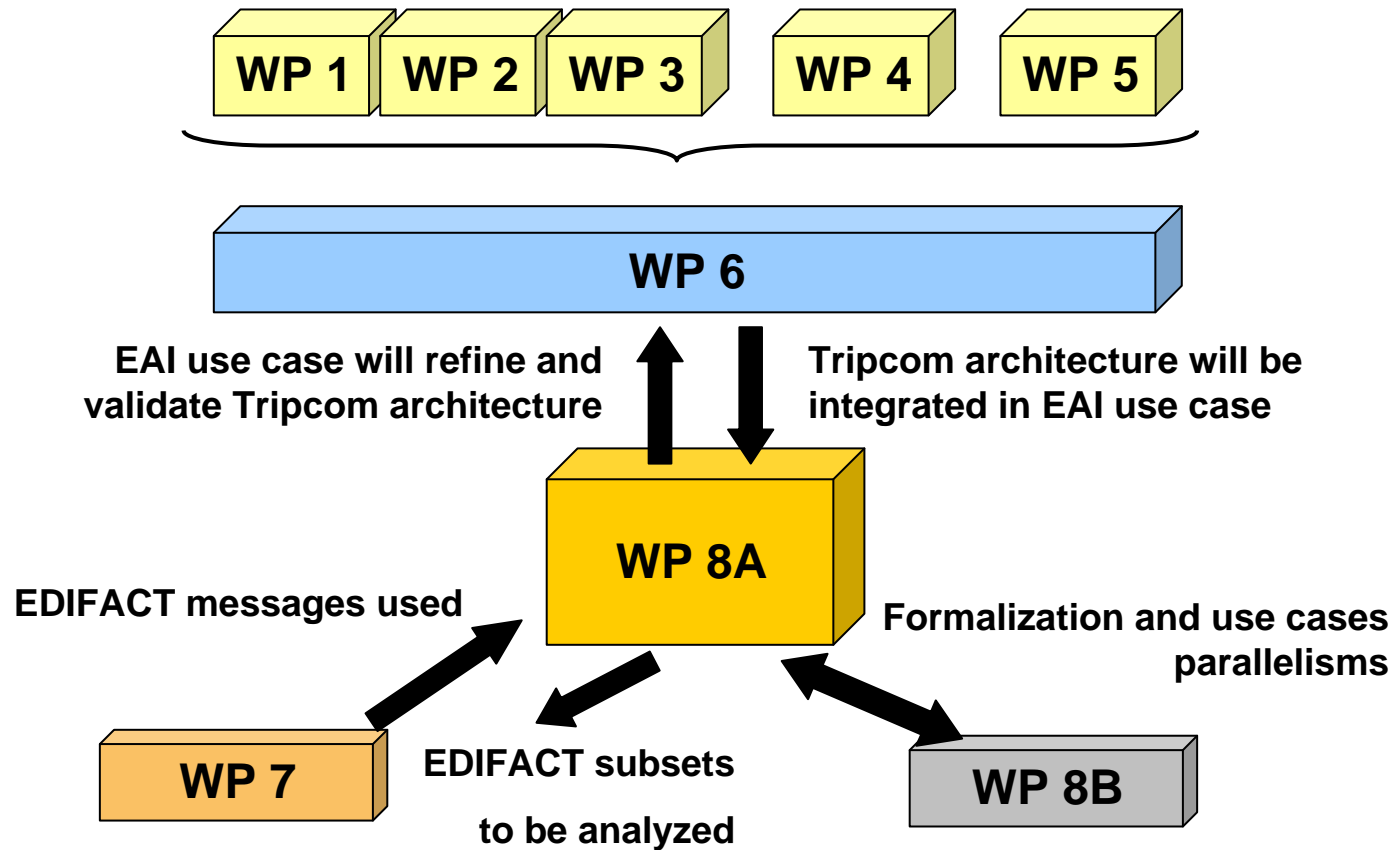


- **Introduction and relation with other Tripcom WPs**
- **EAI Use case scenario: Digital Content Management**
  - EAI introduction
  - DCM business scenario
  - Drawbacks of this business scenario
- **How Tripcom can improve DCM**
- **Use case: DC based service creation**
- **Conclusion**

# Introduction and relation with other Tripcom WPs

- **General objective of this WP**
  - Establish the application of TripCom towards the problem area of EAI
  - Provide a TripCom-based architecture for intra and inter-organization application integration
  - Prototype implementation
  - Explore a “Best Practice Guide” for the usage of TripCom in EAI implementations
  - Provide a validation framework Defined contributions form partners

# Relation with other WP



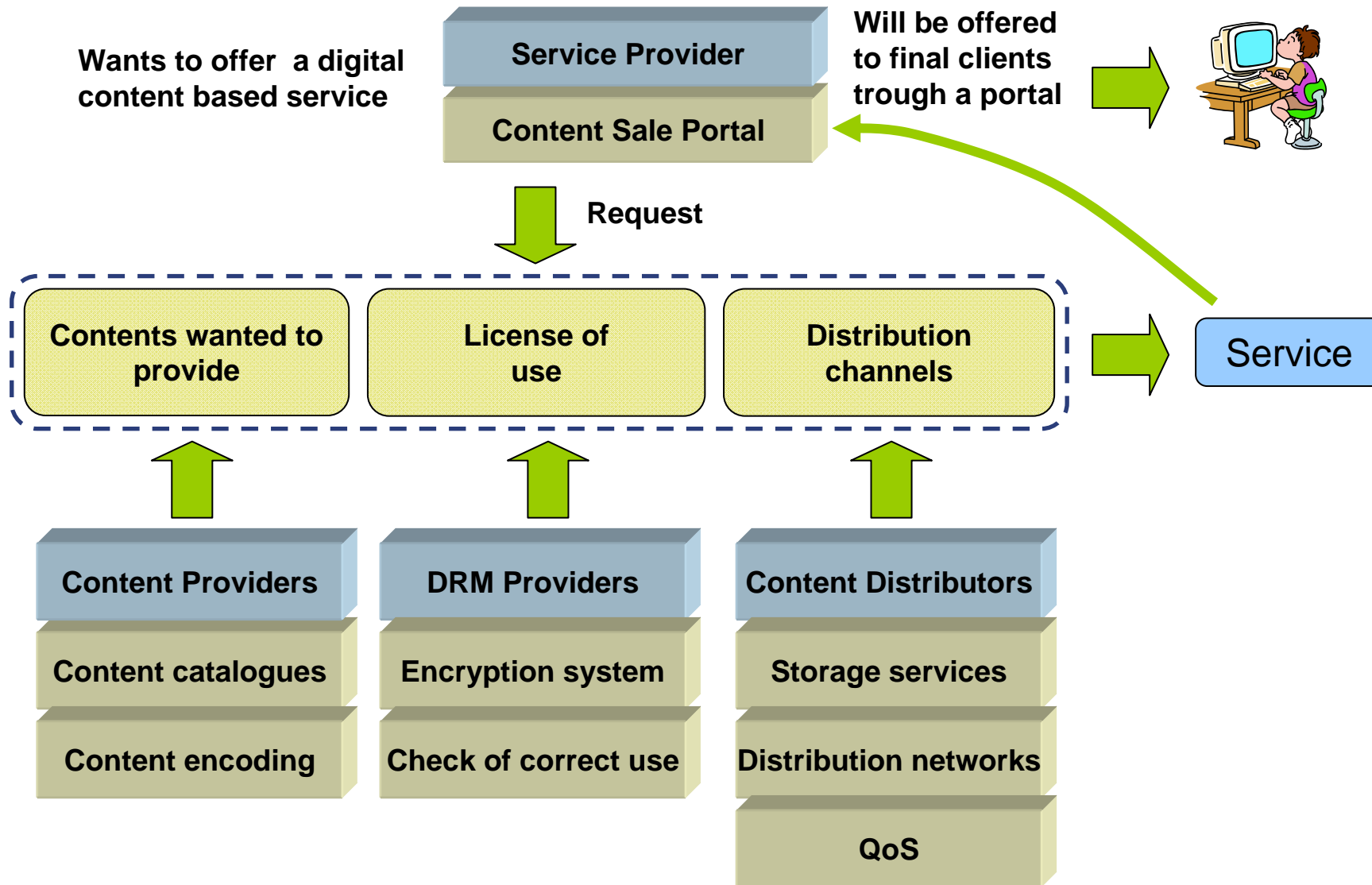
# **EAI Use case scenario: Digital Content Management**

- Is an extended technology designed for **integrating**
  - Data (formats, DB, shared info).
  - Message communication (communication mediation)
  - Business processes (reusing BPs)**within a company or between enterprises (B2B).**
- Tries to provide companies with:
  - Data synchronization.
  - Business processes execution.
  - Technical and syntactical differences overcoming.
  - Quick application development.
  - Better reusing and maintenance.
- **Objective: cost reducing**

- Trading digital contents is becoming an **emerging business** for a lot of different companies.
- Involves several companies / departments of a company **working in a collaborative way**.
- Is part of the new **end-to-end service approach** which telco companies are following.
- The way to exploit this business area is **offering services** based on digital content distribution.

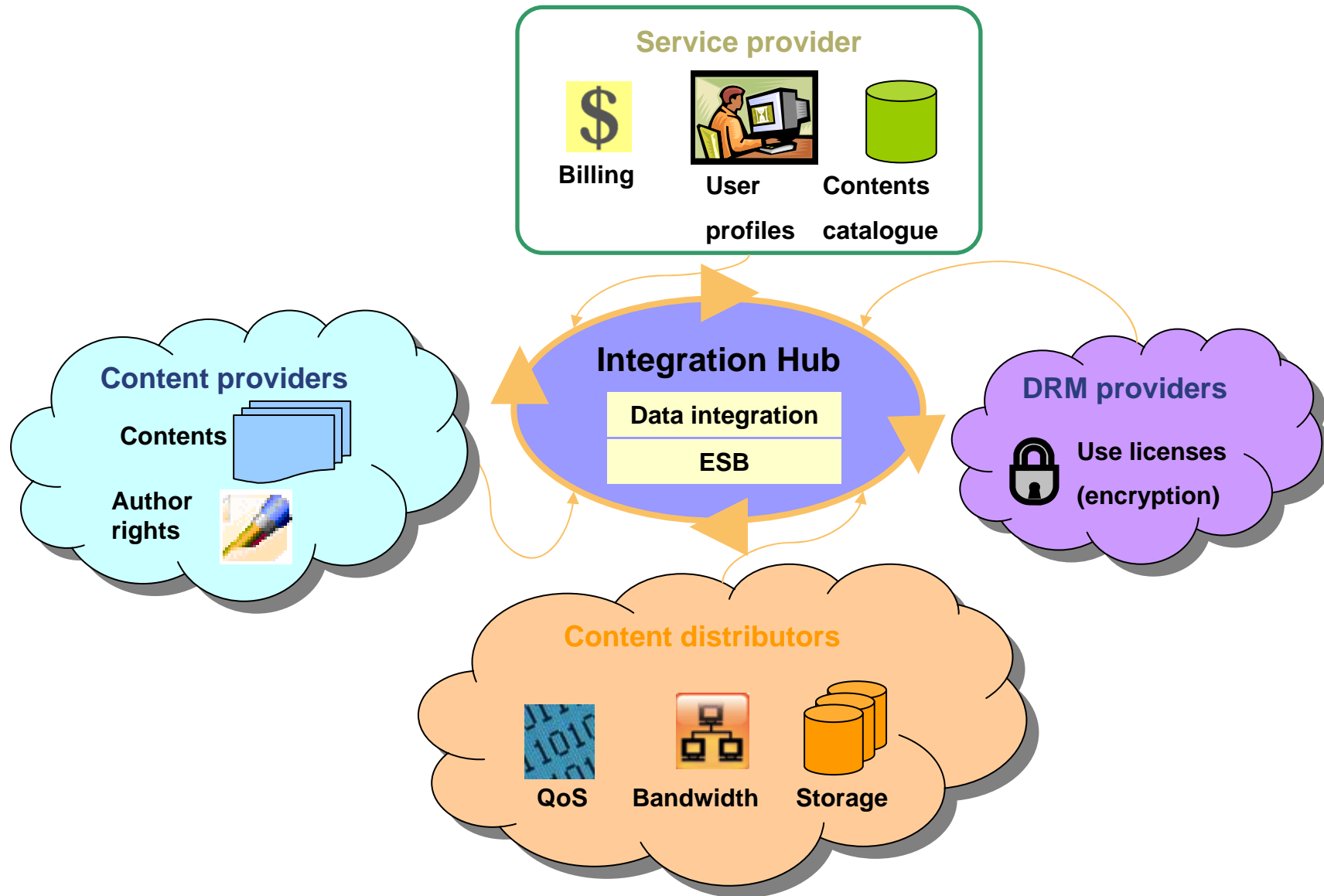
- **Content provider:** owns some contents and wants to trade with them.
- **DRM provider:** performs all the content rights management, providing licenses.
- **Service provider:** offers digital content based services to final users, performing the user management services (billing...).
- **Content distributor:** provides access to the contents through storage, bandwidth services, quality of services...

# Actors involved in DCM II



- Highly heterogeneous
  - Different kind of contents (audio, video...) and formats of visualization (TV, streaming...).
  - Different kind of enterprisers involved in the business scenario (telco operators, TV companies...).
  - Different services needed.
- Dynamic and highly coupled communication.
- Lack of standardized technologies.
- Needs for a communication integration:
  - Reliable
  - Interoperable
  - Need a communication mediator between agents

# DCM integration using EAI

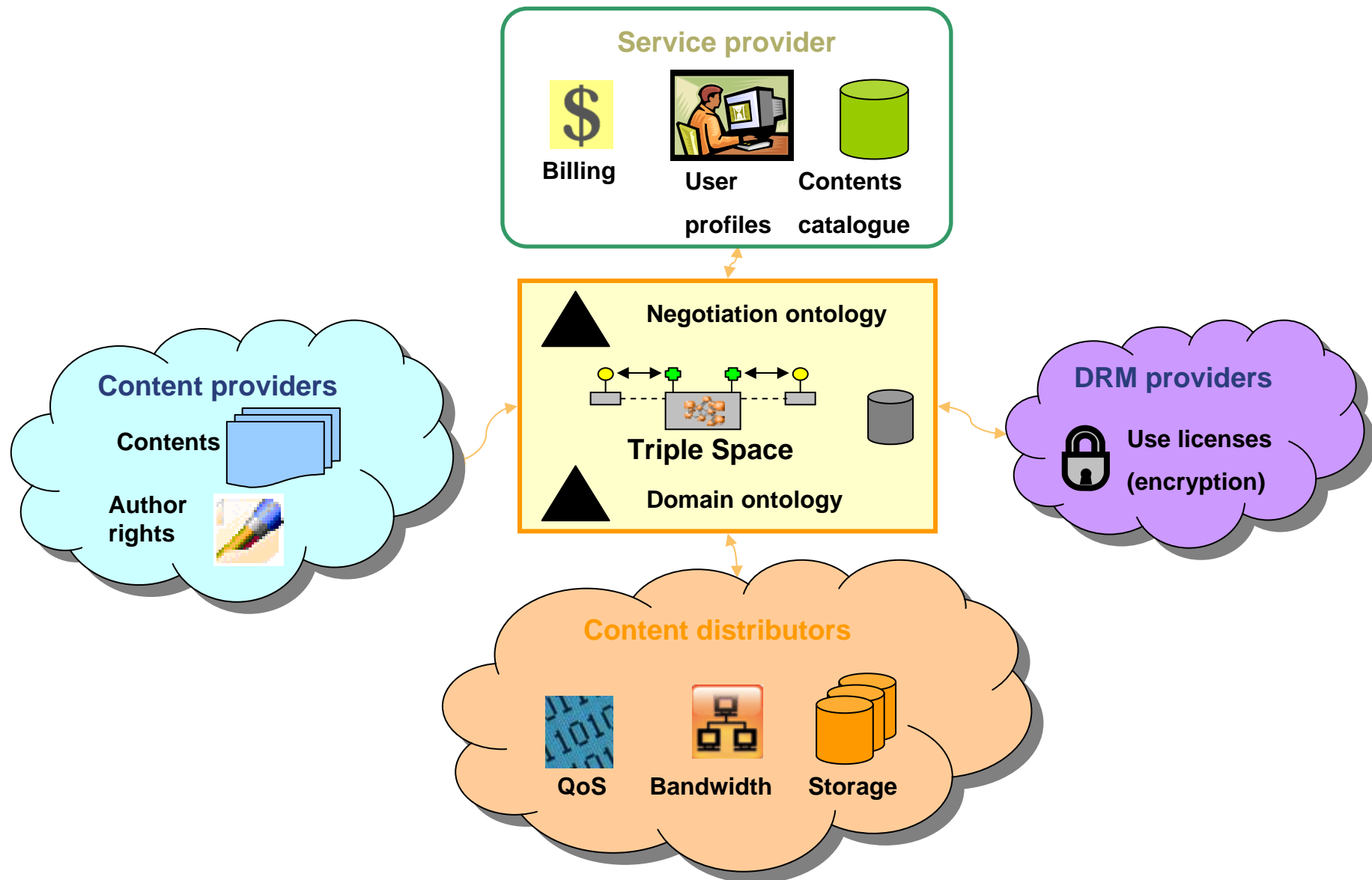


- Lack of **semantic mediation** for data integration.
- Enterprises must **know each other** in order to communicate, agreeing a communication exchange format.
- **Synchronization points are needed** in order to act as check points during the negotiation process performed for each service needed.
- Communication handicaps because of **different implementations employed** by enterprises.

# How TS can improve Digital Content Management

- **Space autonomy**
  - Anonymous communication between agents (direct communication only with TS).
  - Encourages confidentiality and trust
- **Time autonomy**
  - Makes possible to hold different service negotiations with different progress
- **Reference autonomy**
  - Makes implementations transparent to other agents.
- **Persistent storage**
  - Eases new negotiations similar to negotiation hold previously between actors.

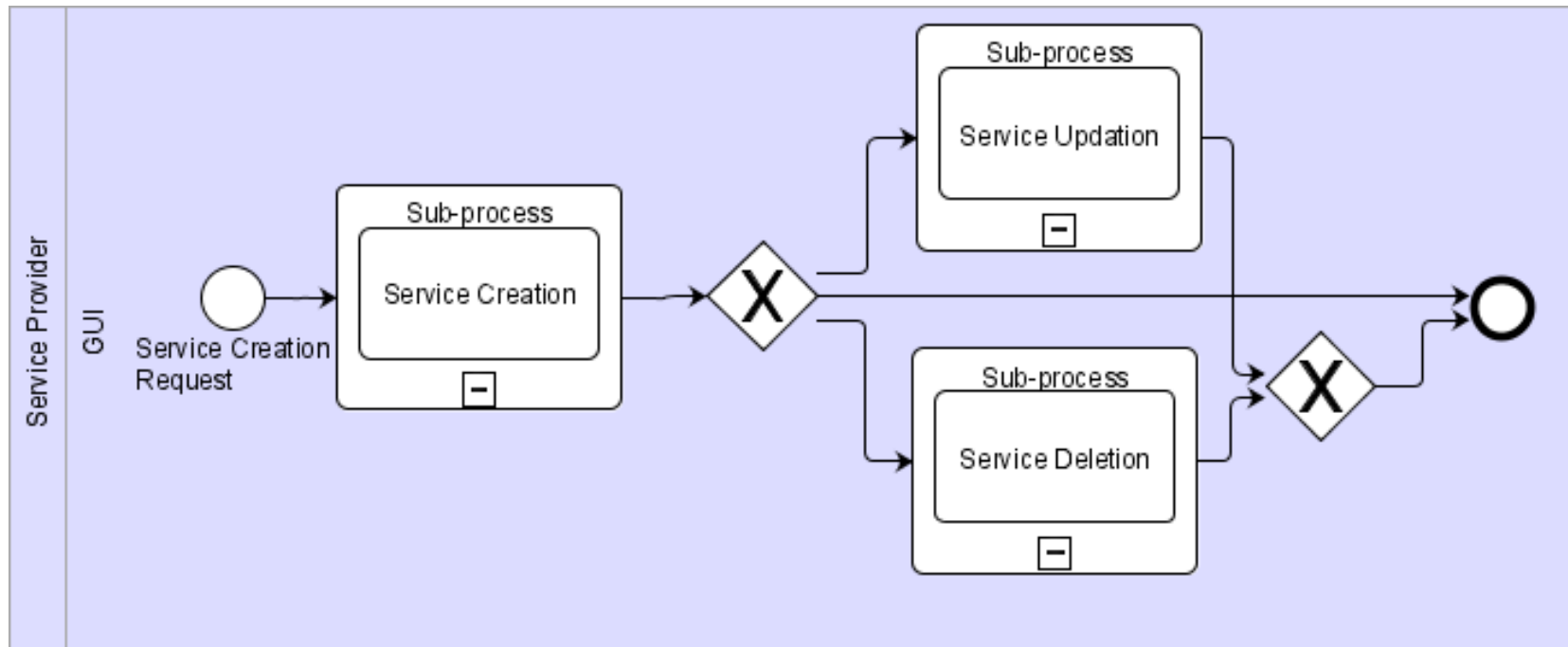
# Role of TS inside this communication



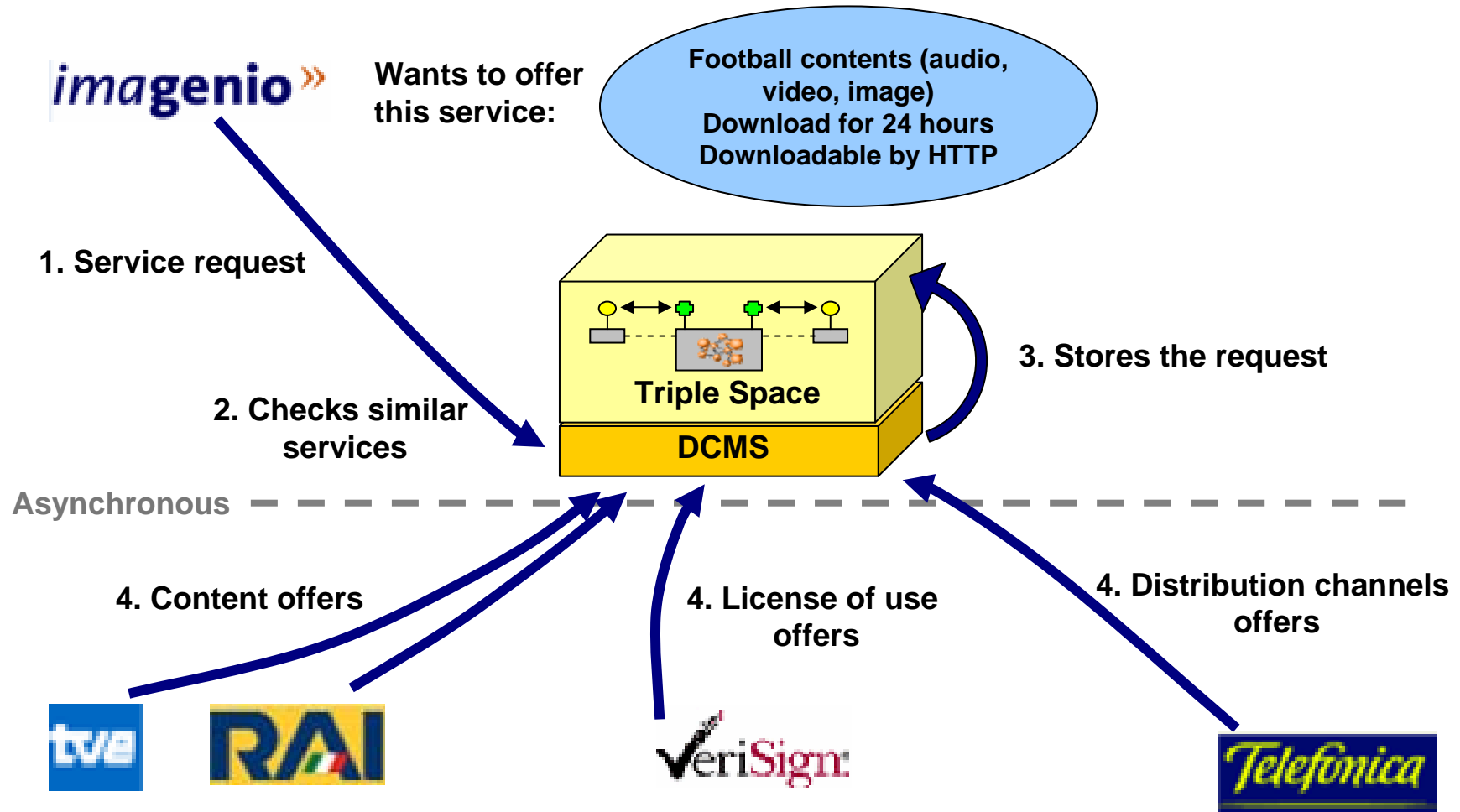
- **Message mediator**
  - TS will mediate between all agents present in a negotiation, performing the EAI's message hub role.
  - Messages of negotiation will be EDIFACT messages selected from the general EDIFACT set.
- **Business mediator**
  - The communication mediation performed by TS derives in a business referee role which implies that agents present in business chain remain transparent each other.

# Use case description: DC based service creation

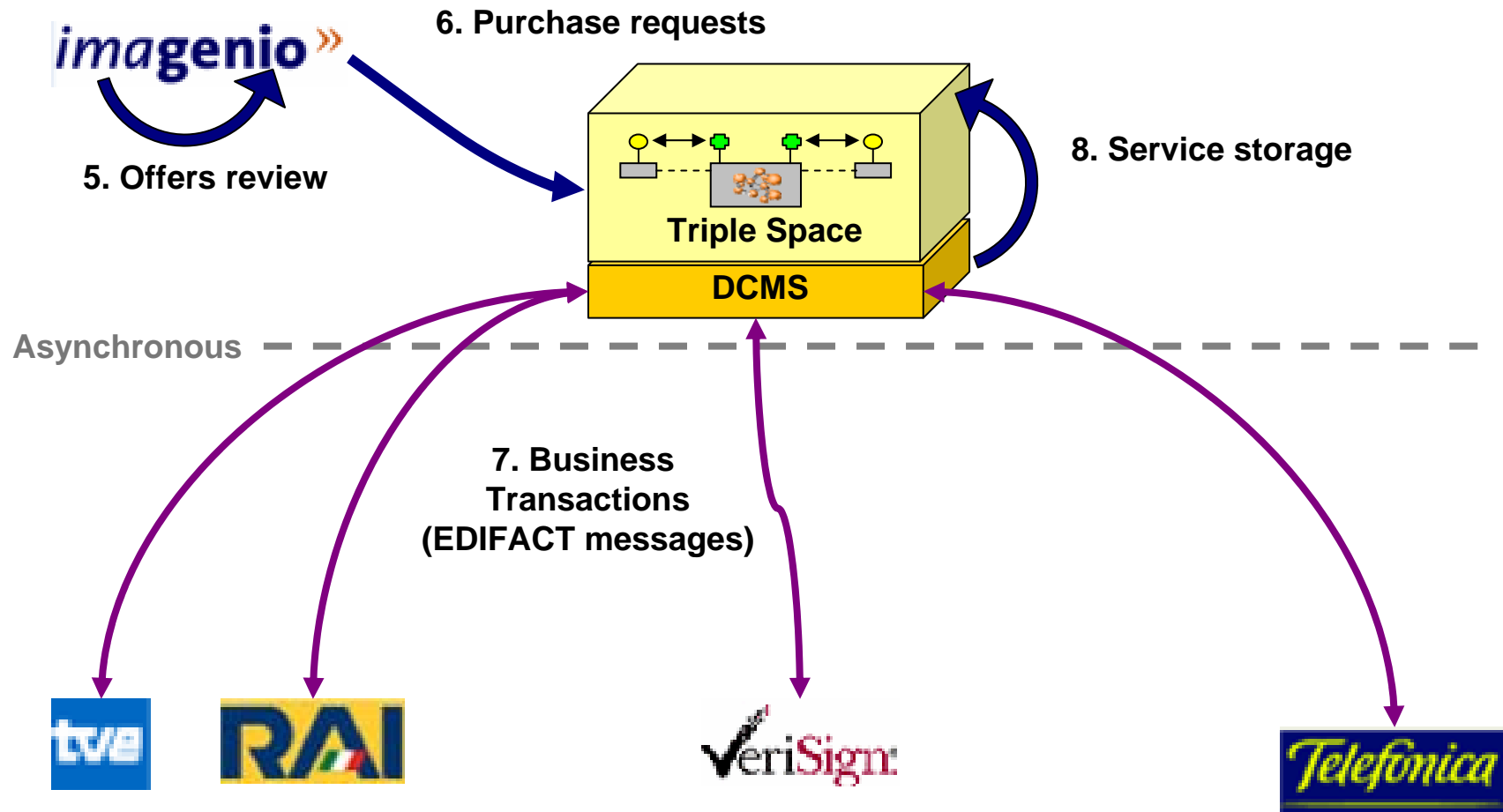
# Service life cycle



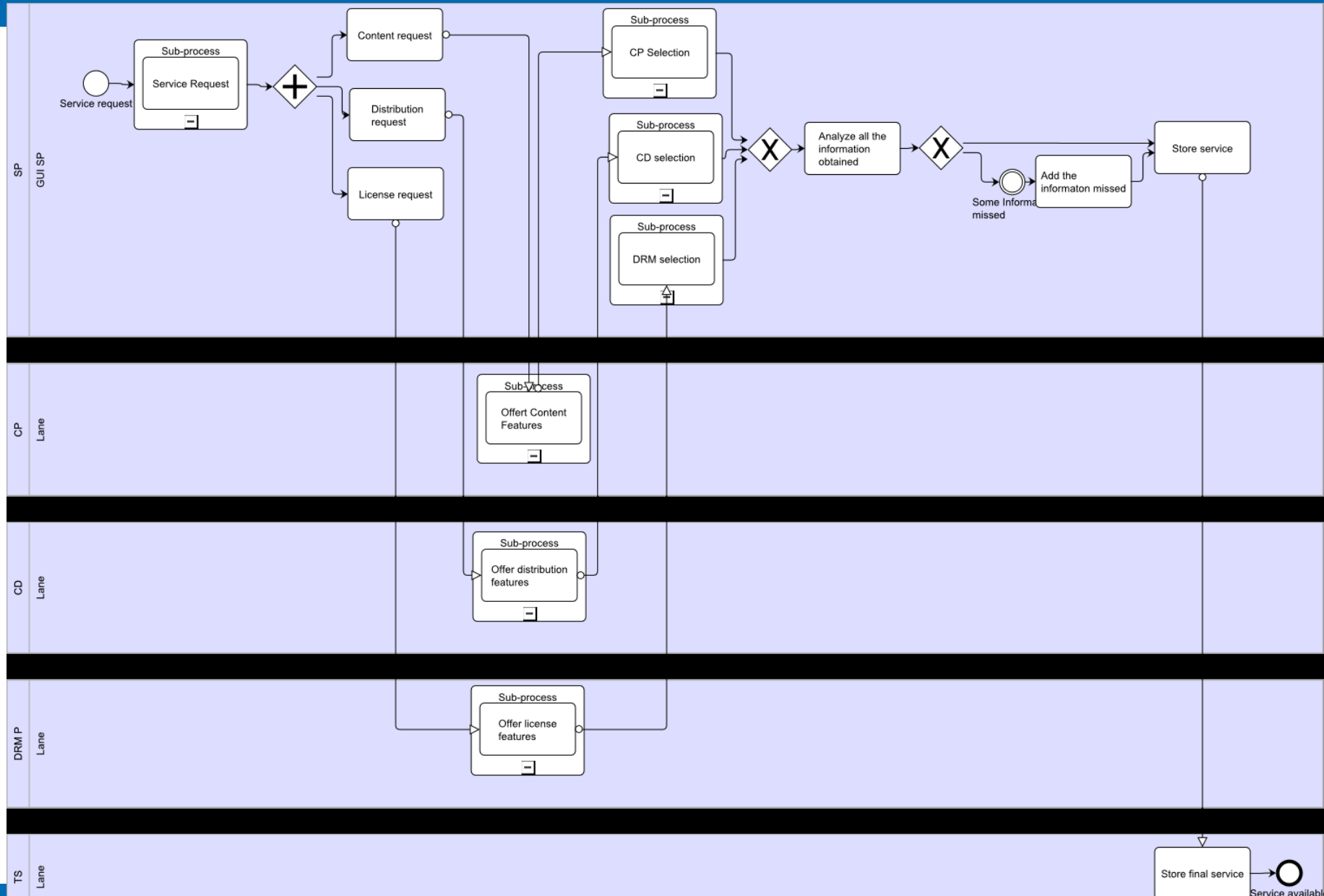
# Storyboard



# Storyboard II






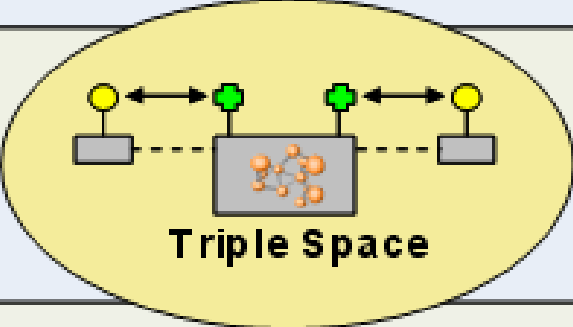






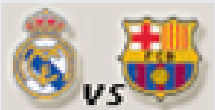




# Creation of a service processes

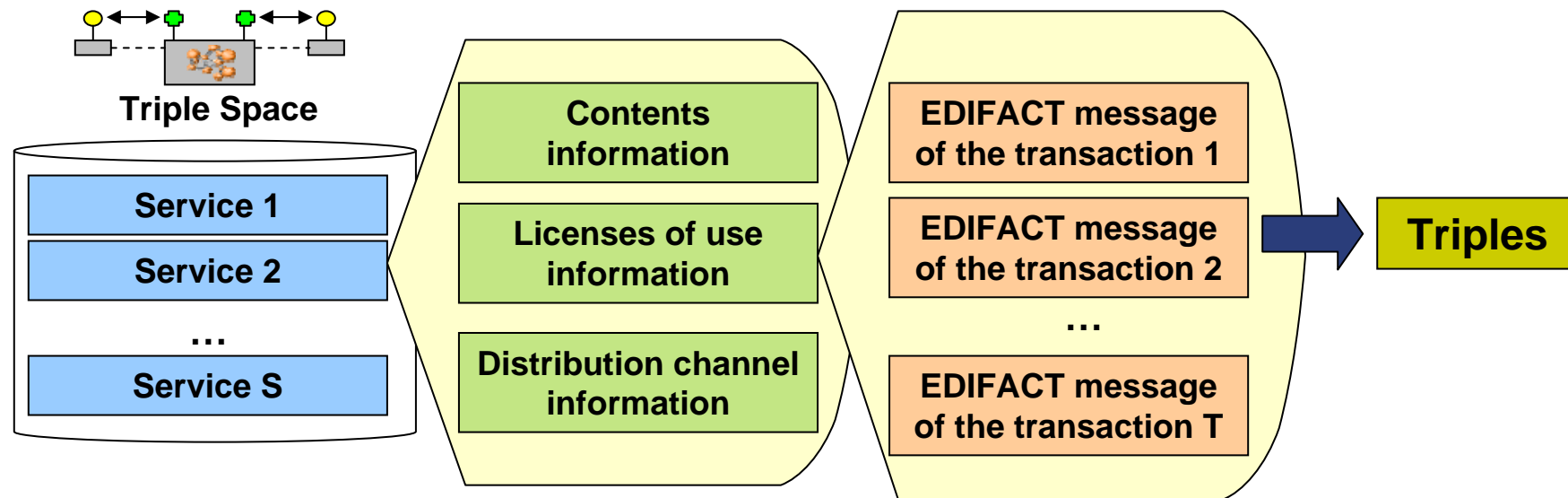


# Actors playing roles for the use case



Final user	  	Final users & content portals
SP		Imagenio
CD	  	Telco & Storage companies
DRM	 	Encryption servers
CP	  	TV companies & Cable operators
Contents	  	Football matches

# What will be stored in TS



- Won't store a history of past negotiations because it's not useful to create new services.
- Will store services catalogue so that they can be created, checked, modified and cancelled
- This information stores would be used within services contract and use (out of the scope of the use case)

# Conclusions

- Clear scenario where **EAI is being currently applied**.
- **Emerging business** which is potentially interesting from a business perspective.
- Same business domain **used in SUPER** by TID
  - Use cases can be complemented (Communication vs. Business Processes EAI levels).
  - Relationship between projects.
- Makes good **use of EDIFACT ontology**, which will serve as a starting point for most general Tripcom & EAI based applications.

- WP2: Tuple space requirements: how info is stored
- WP3: data retrieval requirements: how information will be retrieved while holding a negotiation.
- WP4: SWS requirements: how the DCM Space will access Tripcom.
- WP5: security requirements: data access policies, confidential information.
- WP6: integration requirements.
- WP7: EDIFACT messages selection
  - WP7 provides the most suitable EDIFACT messages used for each use case communication.
  - WP7's ontology is being used to store the messages into the TS.

## ■ Parallelisms

- Methodology used to describe use cases is the same
- Similar contents presented in both deliverables for each business domain (eHealth/EAI).
- Steps performed in each WP are equally scheduled.

## ■ Differences

- WP8A use case focused in message level. TS performs communication mediation using EDIFACT messages which are persistent stored.
- WP8B is more data level centered.