

SC32WG2-N1423

Final Study Report on ROR

May 2010

SC32WG2 Kunming, China

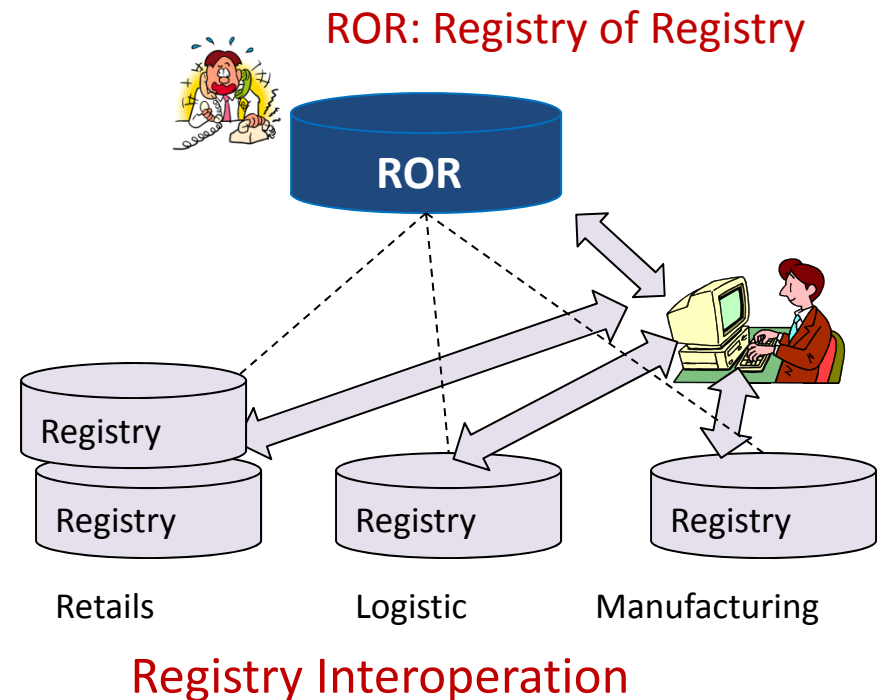
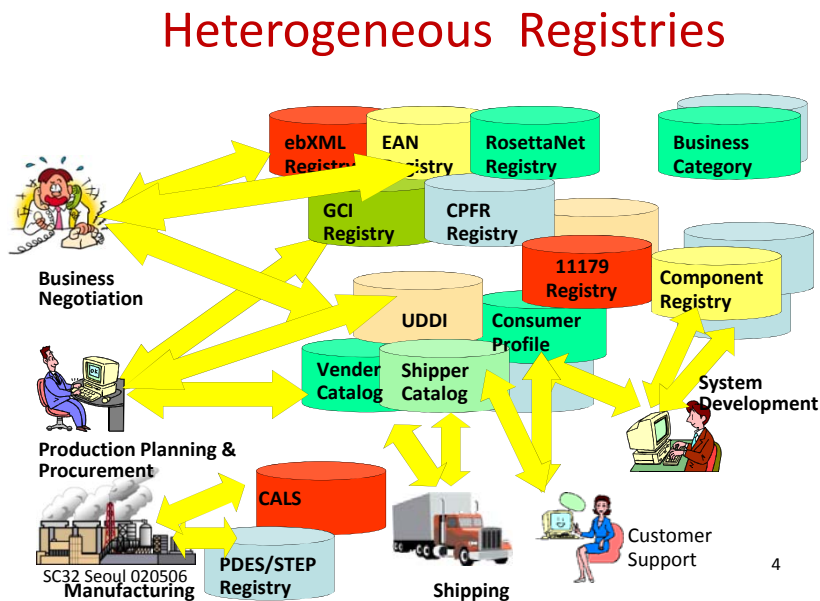
Hajime Horiuchi

Background

- The study period project was initiated at the SC32 Sydney Meeting (May 2008) and extended one year at the SC32 Jeju Meeting (Jun 2009).
- The project was being in charge of the investigation of many possibilities of “Registry Interoperability” In term of ROR (Registry of Registries).
- The final conclusion was made as a standard by which any heterogeneous registries could be described as simple profiles.
- The standard for the registry profile could be a part of the MFI-6 (Registration procedure).

Objectives of the study

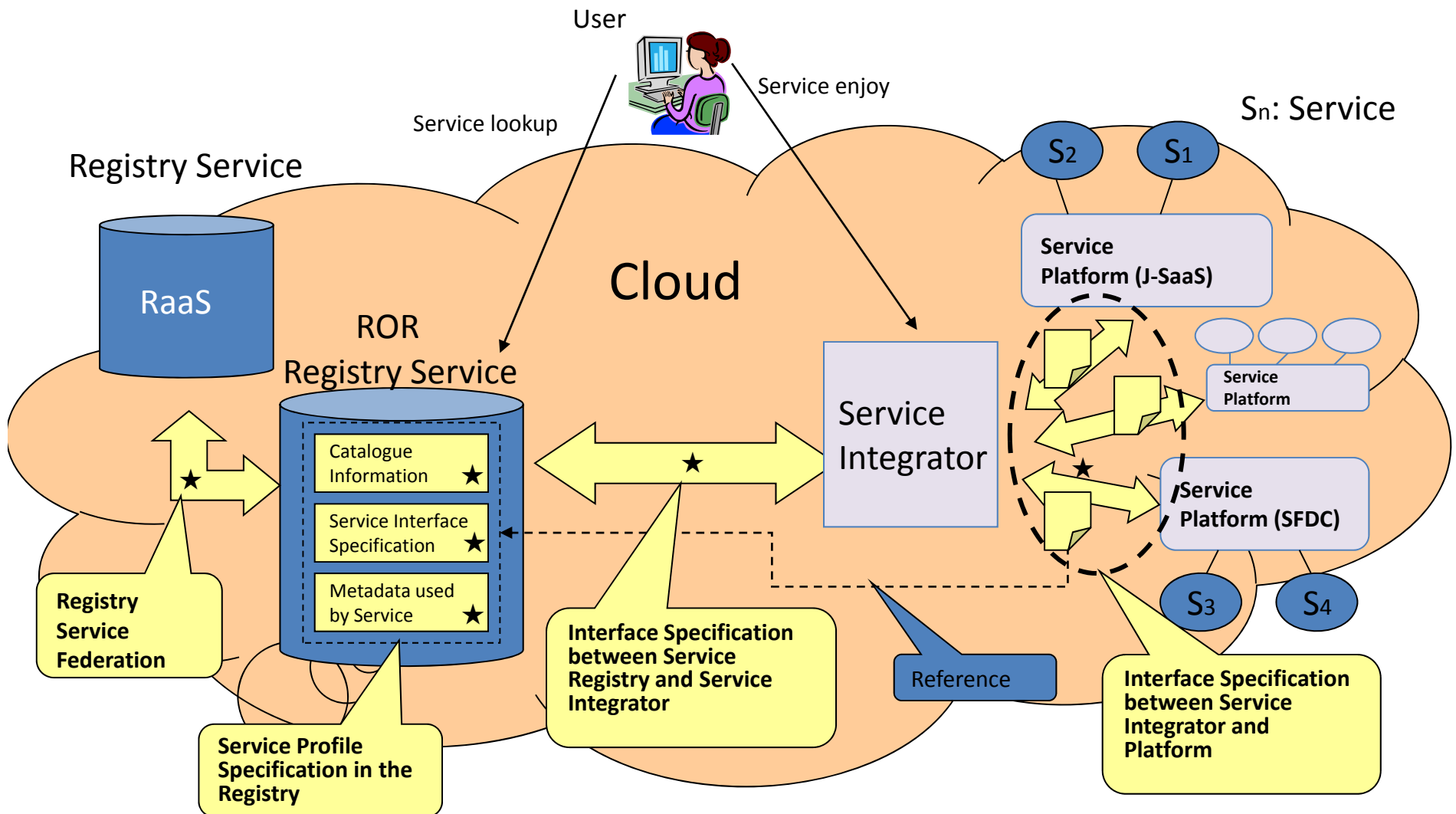
- Originally, ISO/IEC 19763 (MFI: Metamodel Framework for Interoperability) in SC32 was addressing the ROR concept.



Cases investigated

- Case-1: Registry Integration Service
- Case-2: Hierarchical Registry Connection
- Case-3: Registry Interface Virtualization
- Case-4: Registry Profile

Case-1: ROR as a Registry Service Integrator



★:Targets to be standardized

Experimental trials on RaaS

<http://mr-devel.tiu.ac.jp>

Service Registry



WSDL

SOAP

ROR
(Registry Service Integration)



<http://modelregistry.tiu.ac.jp>

Client



Browser

<http://serviceregistry.tiu.ac.jp/WS/mdr>

<http://serviceregistry.tiu.ac.jp/WS/mfi>

SOAP



MDR

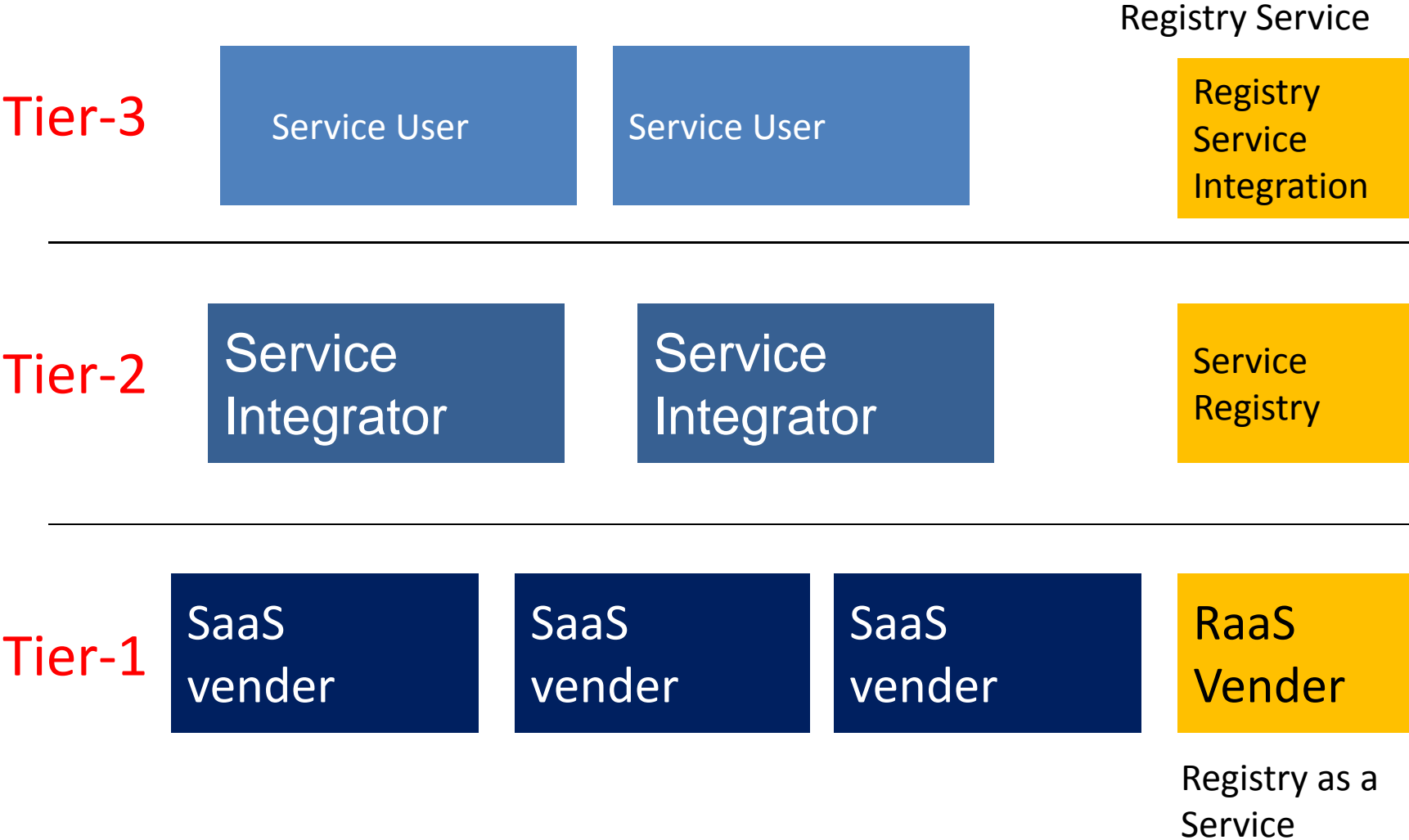
MFI

Registries

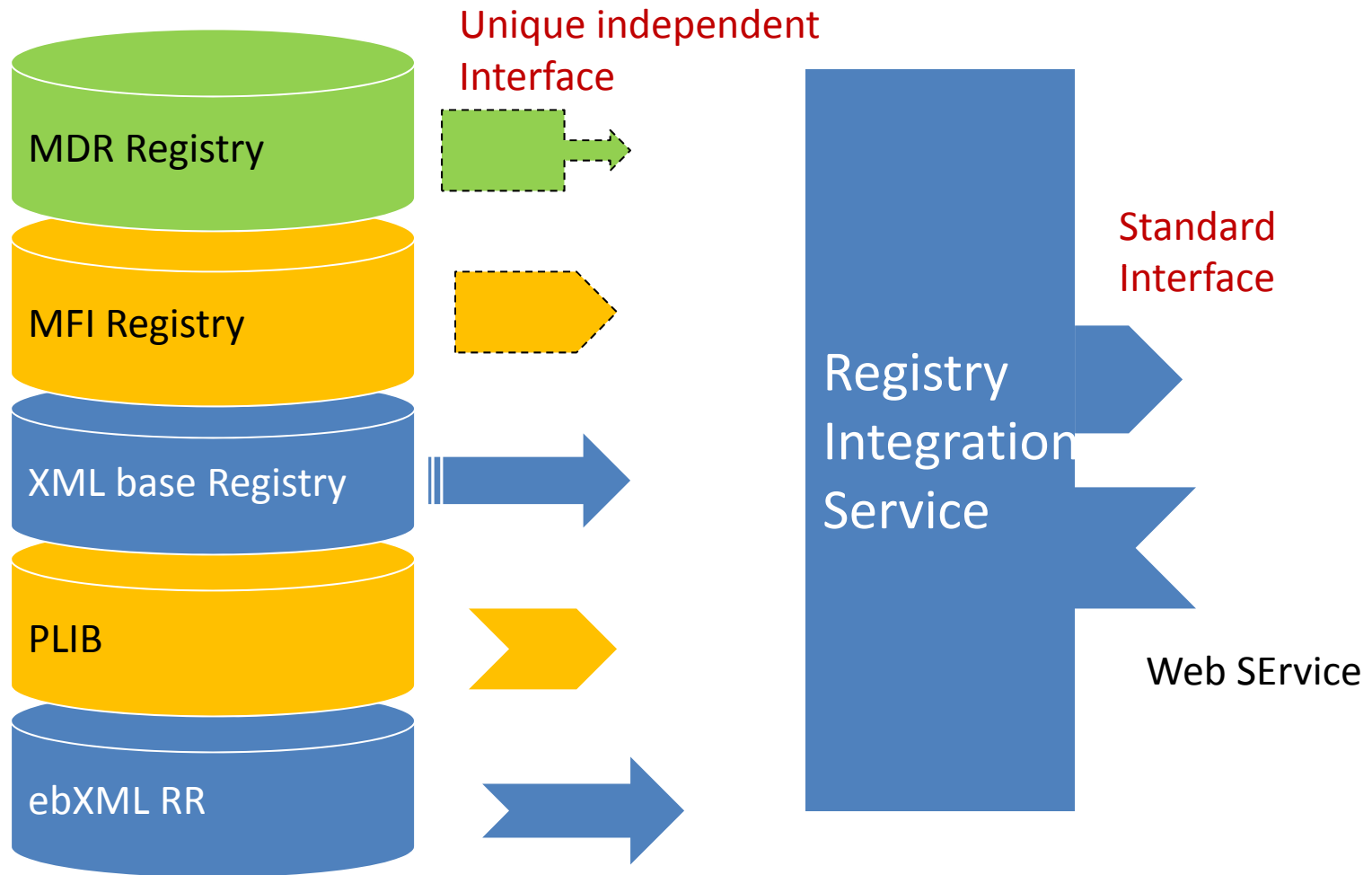
Registries

RaaS

Case-2 : Service Hierarchy



Case-3: Registry Service Virtualization

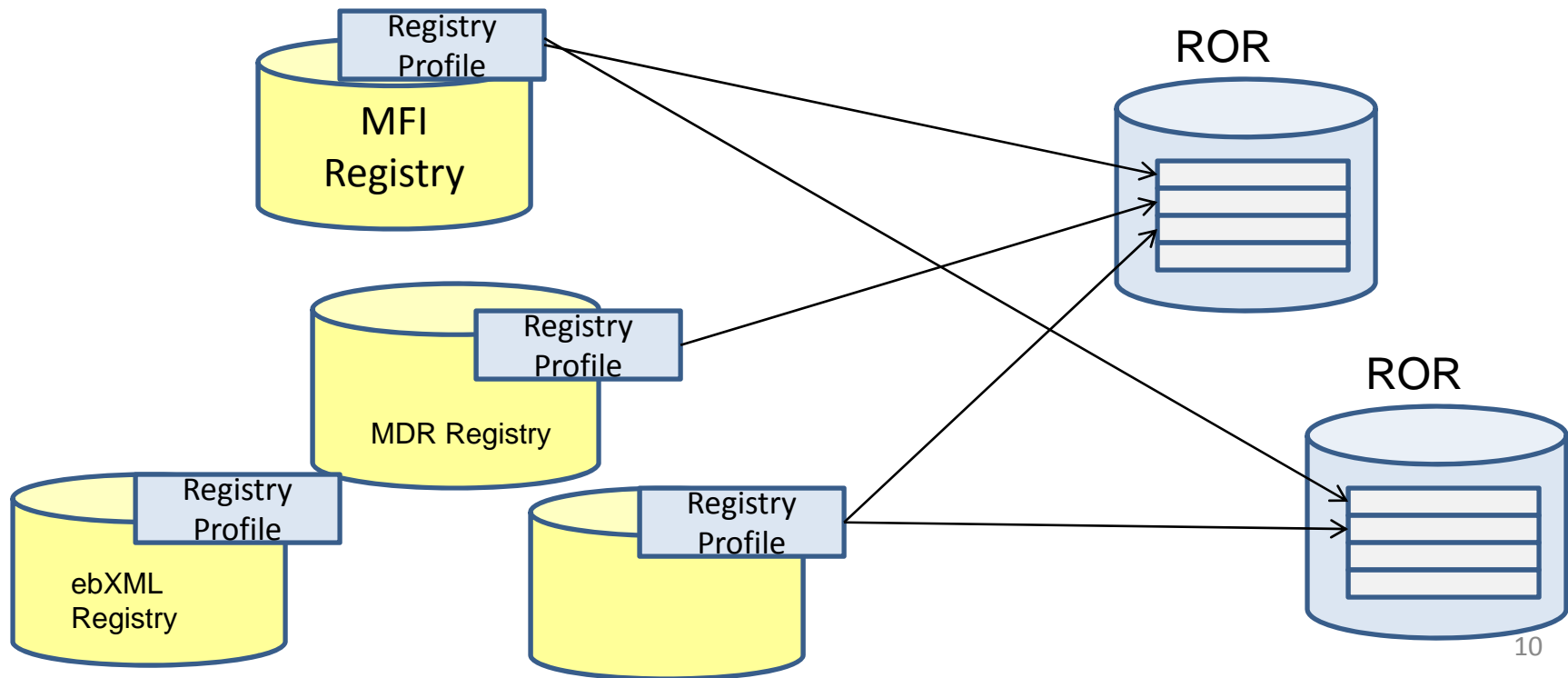


Might invite Confusions

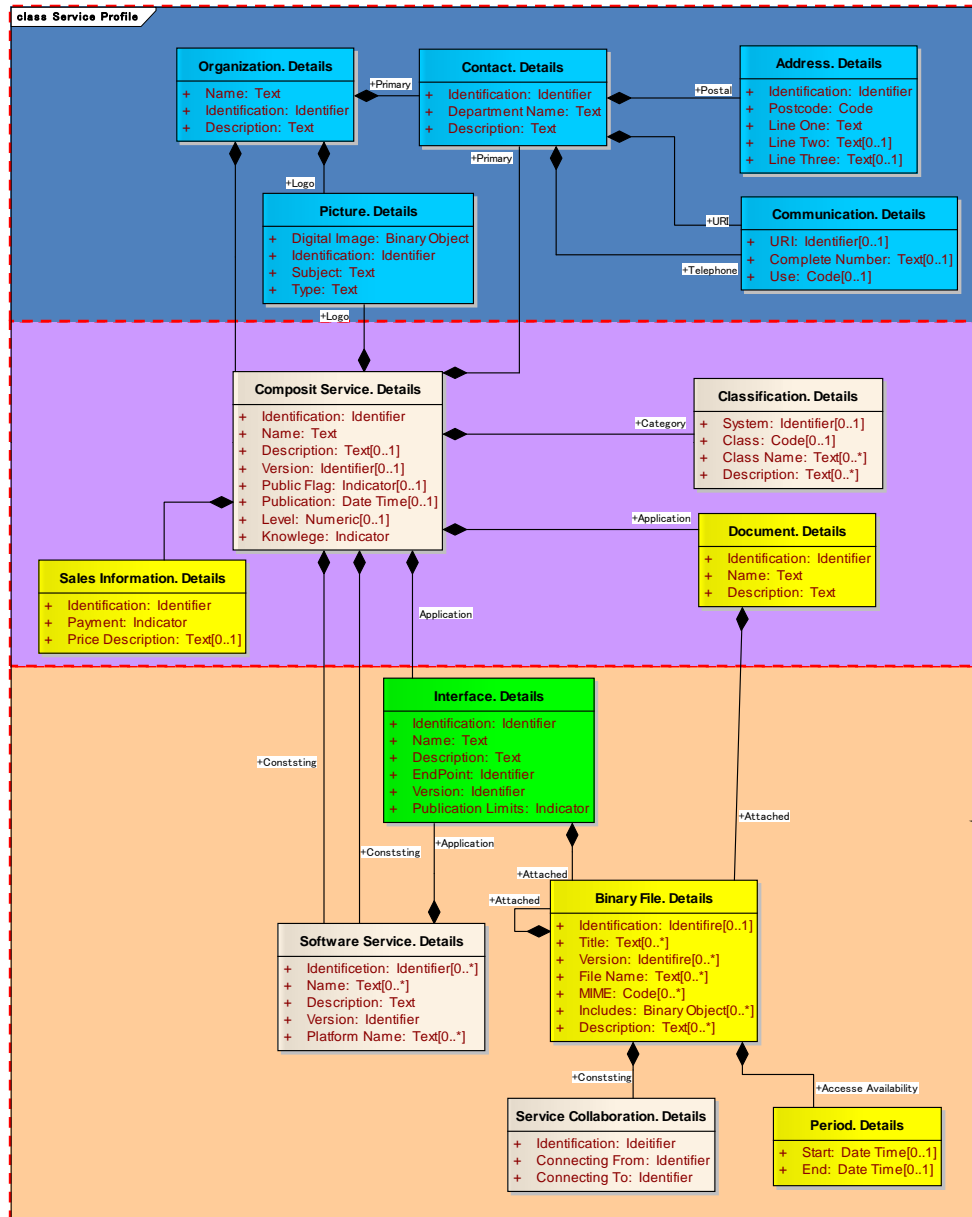


Case-4: Registry Profile

- Only collection of Registry Profiles
- Everybody can collect and store a set of profiles
- Change will be informed by Notification(RSS)



Metamodel for Registry Profile



Information of RA and owner of this registry system.

Information of Registry system.

Information of access interfaces to registry system.

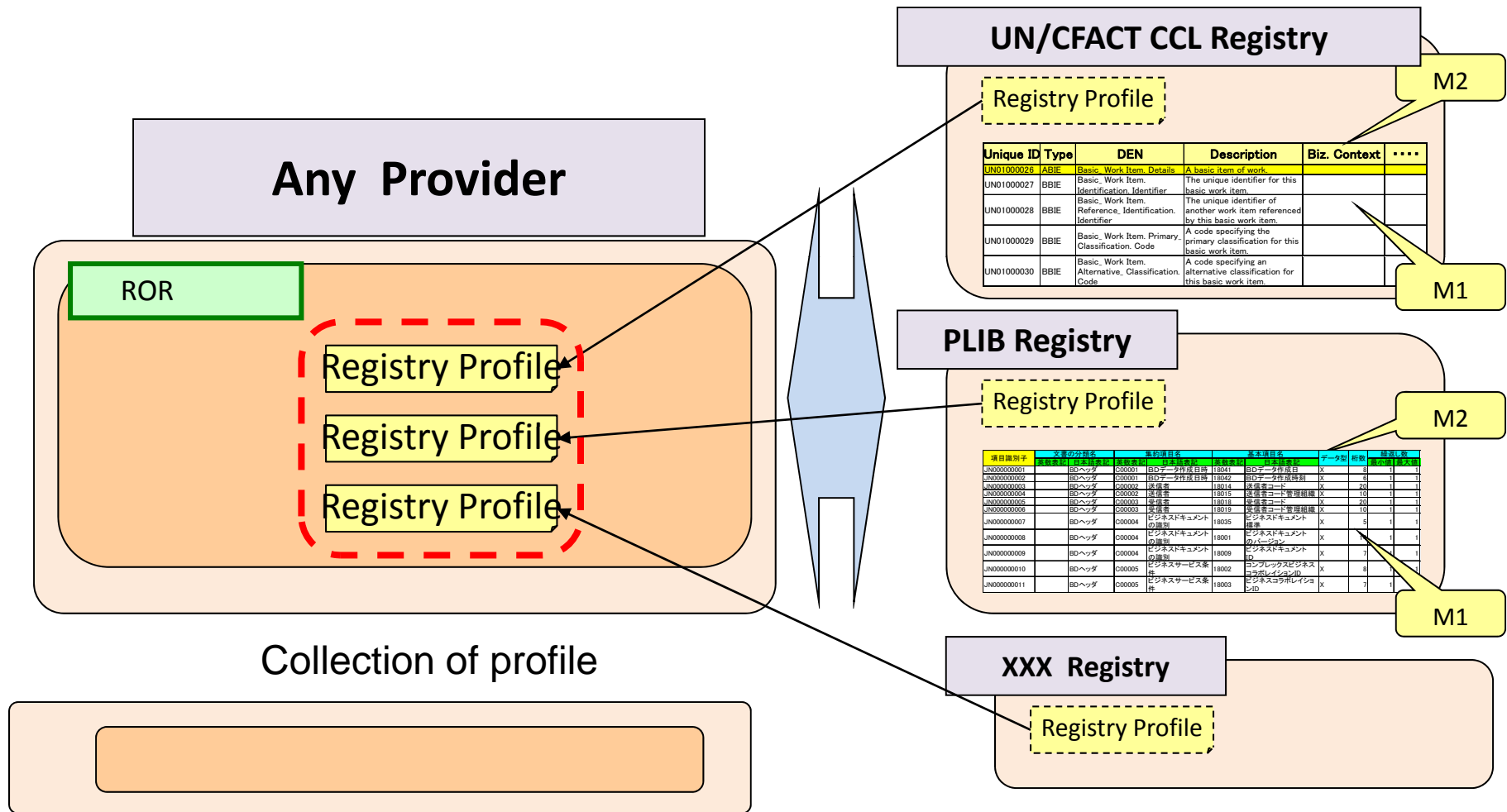
Metamodel for Registry Profile

Organization	Attribute	Data Type	Multiplicity
	Name	Text	1..1
	Identification	Identifier	1..1
	Description	Text	1..1
	Reference	Class	Multiplicity
	Primary	Contact	0..1
	Logo	Picture	0..1
		Composite Service	1..*
Contact	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Department Name	Text	1..1
	Description	Text	1..1
	Reference	Class	Multiplicity
	Postal	Address	0..1
	URI	Communication	0..1
	Telephone	Communication	0..1
Address	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Postcode	Code	1..1
	Line One	Text	1..1
	Line Two	Text	0..1
	Line Three	Text	0..1
Communication	Attribute	Data Type	Multiplicity
	URI	Identifier	0..1
	Complete Number	Text	0..1
	Use	Code	0..1
Picture	Attribute	Data Type	Multiplicity
	Digital Image	Binary Object	1..1
	Identification	Identifier	1..1
	Subject	Text	1..1
	Type	Text	1..1
Composite Service	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Name	Text	1..1
	Description	Text	0..1
	Version	Identifier	0..1
	Public Flag	Indicator	0..1
	Publication	Date Time	0..1
	Level	Numeric	0..1
	Knowledge	Indicator	1..1
	Reference	Class	Multiplicity
	Logo	Picture	0..1
	Primary	Contact	0..1
	Category	Classification	1..*
	Application	Document	0..1
	Consisting	Software Service	1..*
	Connecting	Software Service	0..1
		Sales Information	0..1
Period	Attribute	Data Type	Multiplicity
	Start	Date Time	0..1
	End	Date Time	0..1

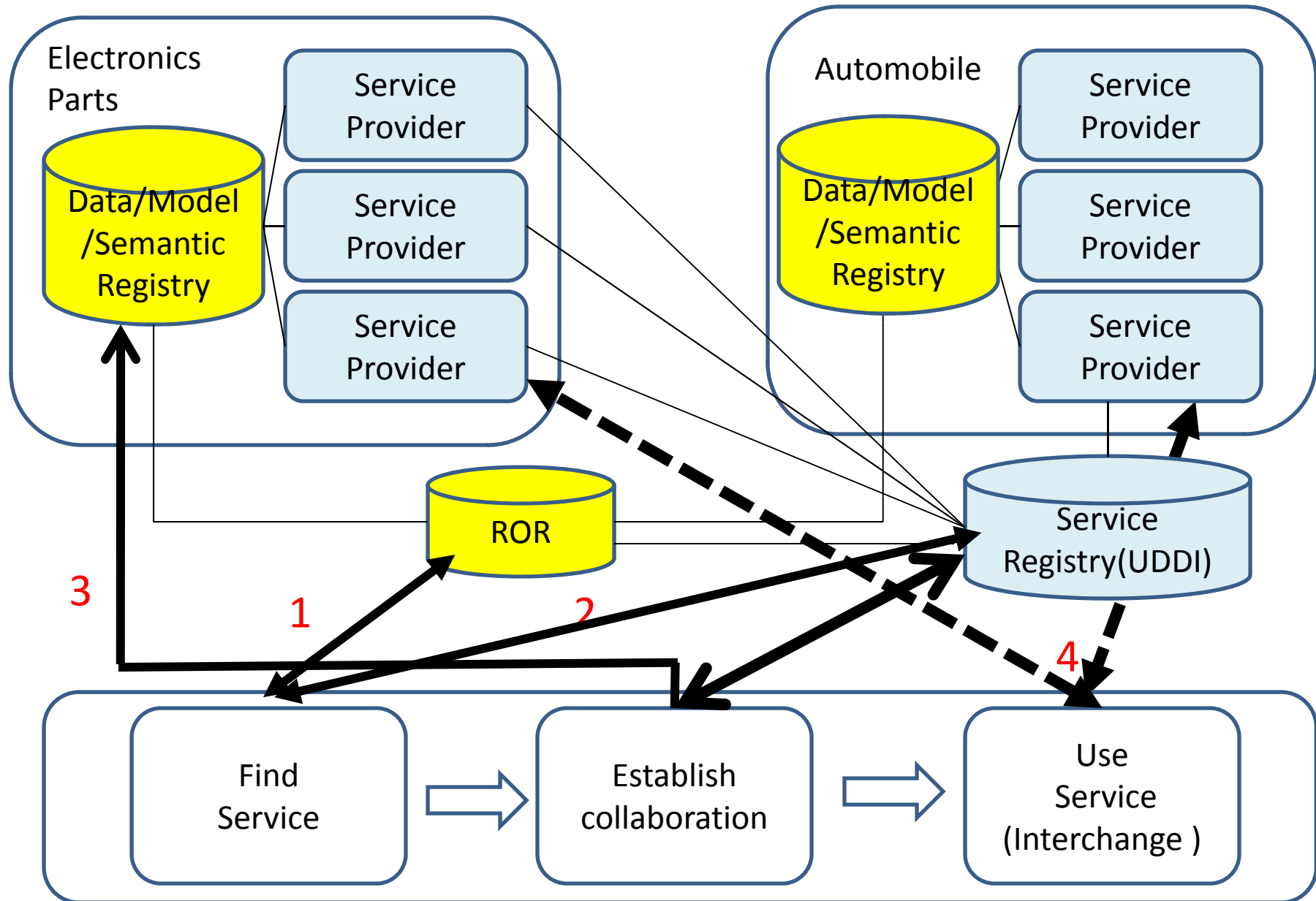
Classification	Attribute	Data Type	Multiplicity
	System	Identifier	0..1
	Class	Code	0..1
	Class Name	Text	0..*
	Description	Text	0..*
Document	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Name	Text	1..1
	Description	Text	1..1
	Reference	Class	Multiplicity
	Attached	Binary File	0..*
Sales Information	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Payment	Indicator	1..1
	Price Description	Text	0..1
Interface	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Name	Text	1..1
	Description	Text	1..1
	EndPoint	Identifier	1..1
	Version	Identifier	1..1
	Publication Limits	Indicator	1..1
	Reference	Class	Multiplicity
	Attached	Binary File	0..*
Software Service	Attribute	Data Type	Multiplicity
	Identification	Identifier	0..*
	Name	Text	0..*
	Description	Text	1..1
	Version	Identifier	1..1
	Platform Name	Text	0..*
	Composite Service Identification	Identifier	0..*
	Reference	Class	Multiplicity
	Application	Interface	0..*
Service Collaboration	Attribute	Data Type	Multiplicity
	Identification	Identifier	1..1
	Connecting From	Identifier	1..1
	Connecting To	Identifier	1..1
Binary File	Attribute	Data Type	Multiplicity
	Identification	Identifier	0..1
	Title	Text	0..*
	Version	Identifier	0..*
	File Name	Text	0..*
	MIME	Code	0..*
	Includes	Binary Object	0..*
	Description	Text	0..*
	Reference	Class	Multiplicity
	Attached	Binary File	0..*
	Access Availability	Period	0..*
	Consisting	Service Collaboration	1..1

Data Type: Core Component Data Type.

Registry Profile

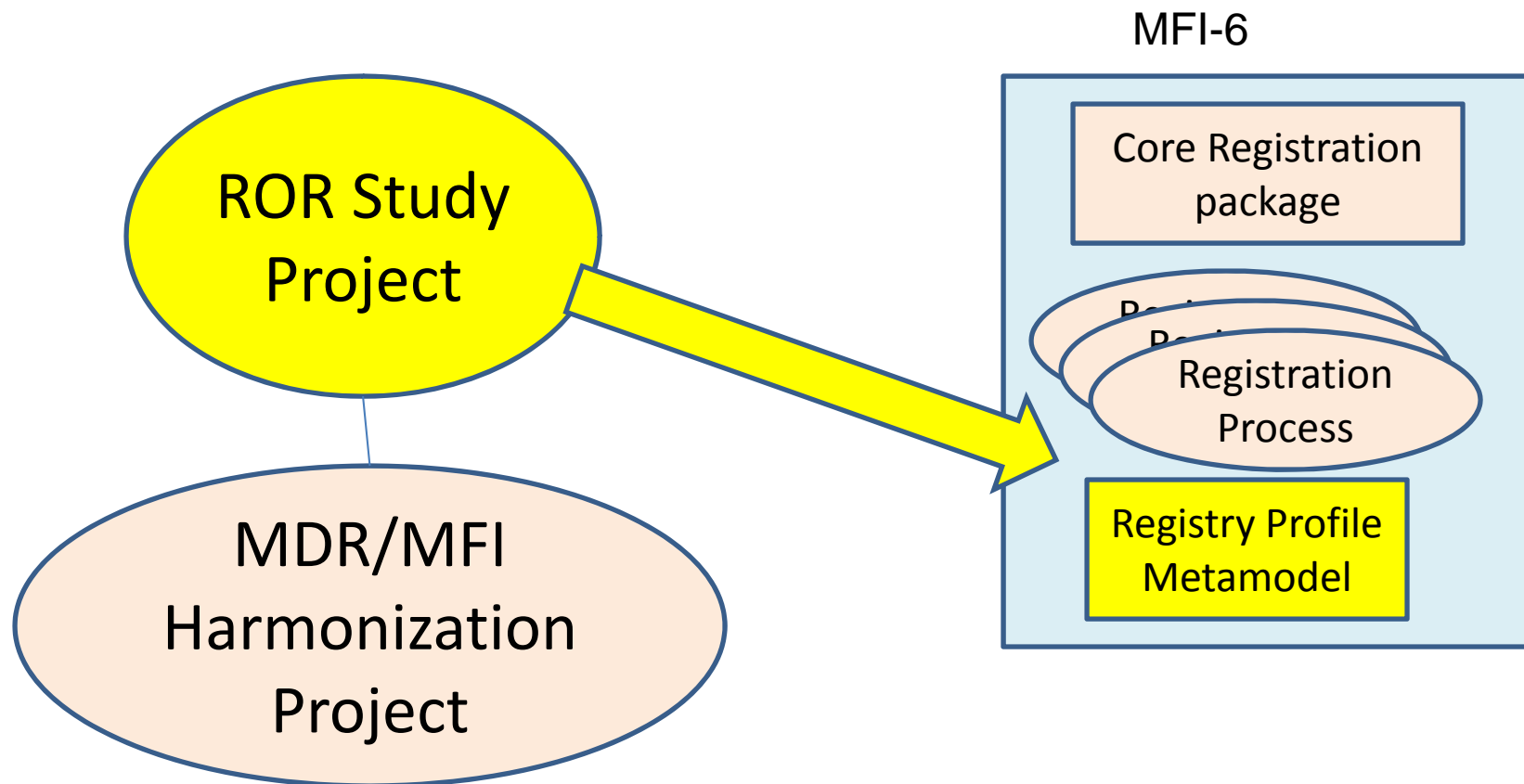


Difference between ROR and UDDI

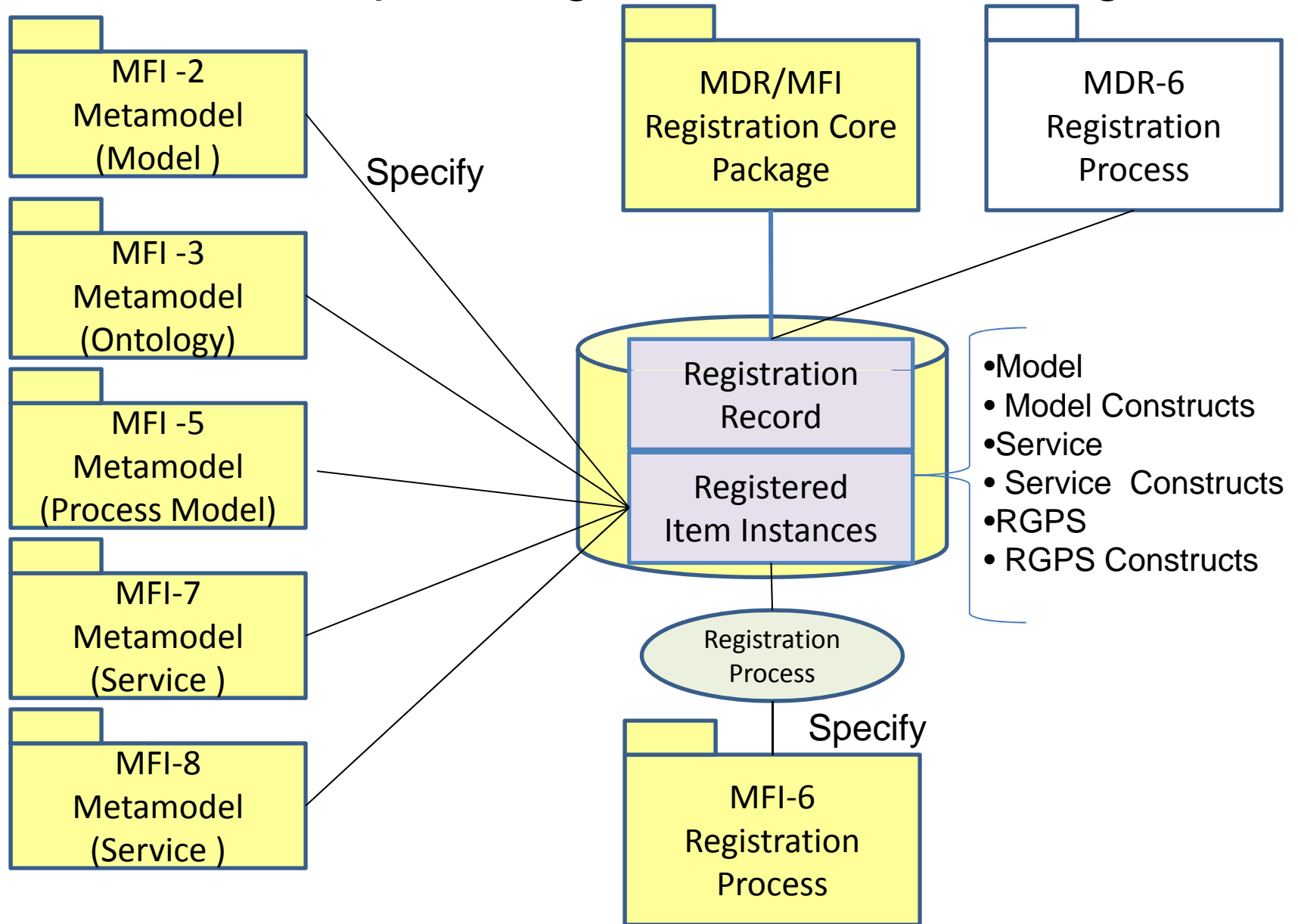


Final Decision

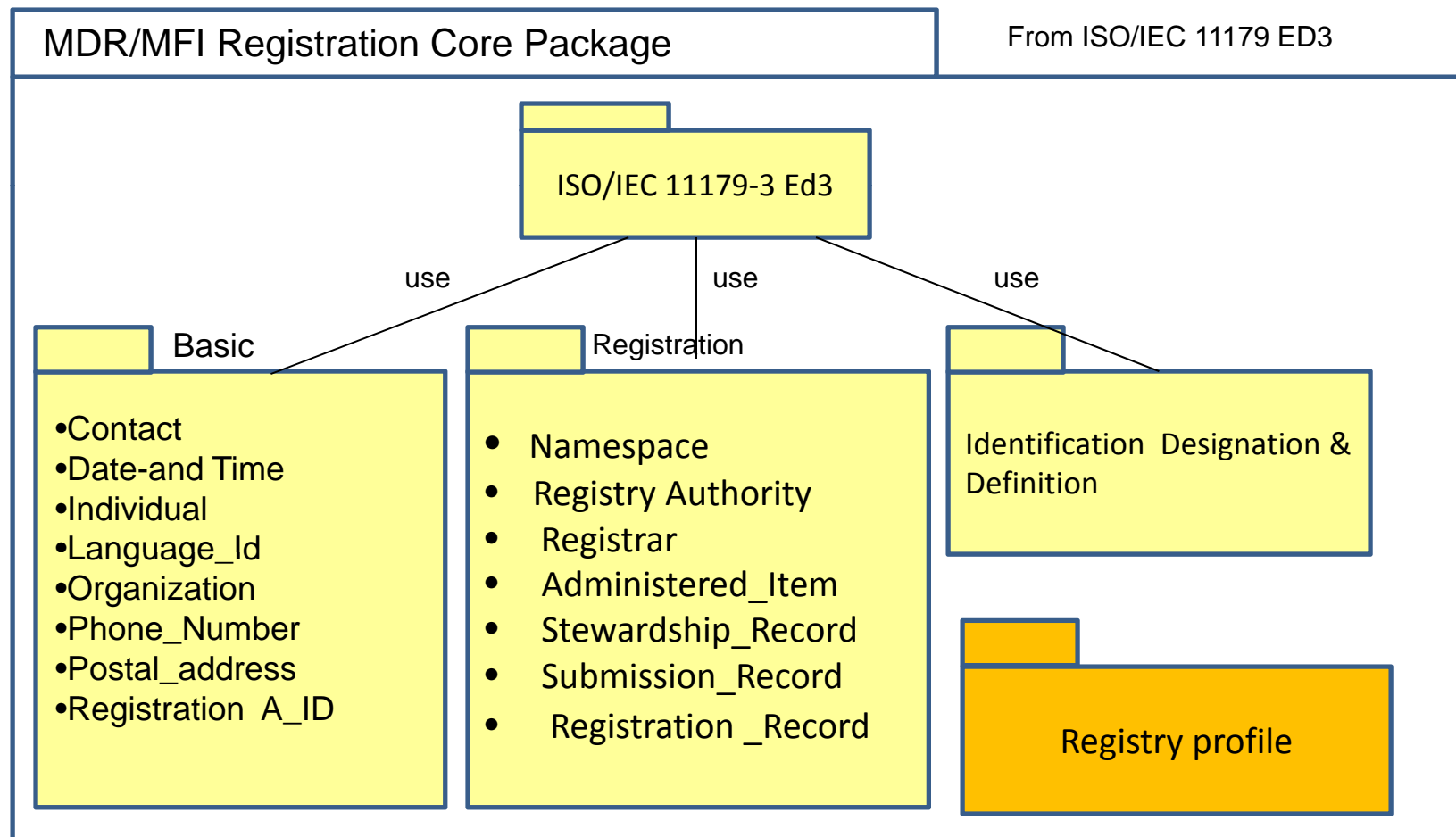
- Let the Registry Profile be a part of MFI-6 (ISO/IEC19763-6: Registration procedure)



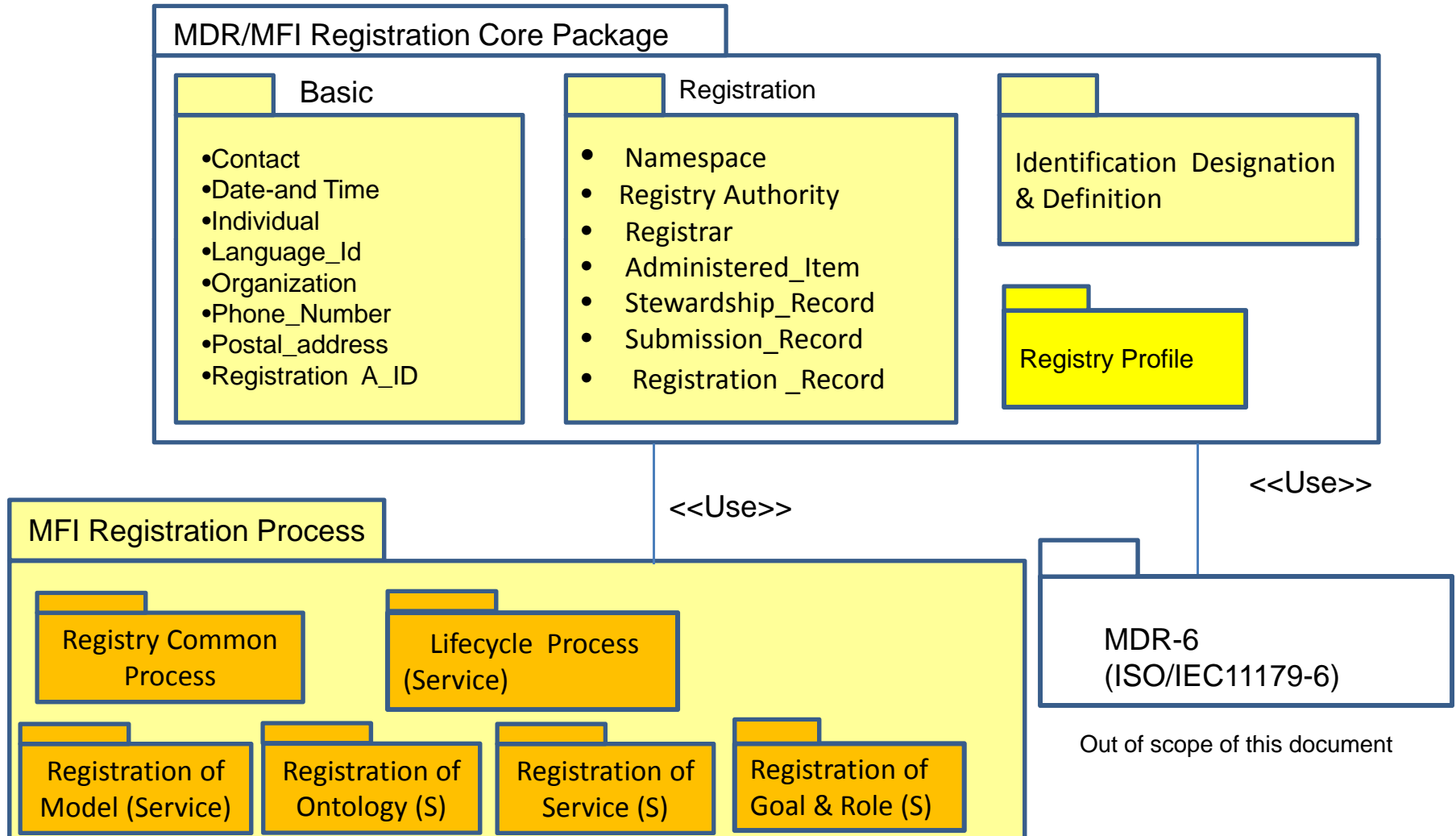
Relationship among MFI & MDR Packages



MDR/MFI Registration Common Core Package



MFI-6 package (Registration)



How MFI metamodels to be used in the Registration

