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ISO/IEC JTC 1 SC 32 – Data Management and Interchange

Bruce Bargmeyer, SC Chair Tim Schoechle, SC Secretariat 2009 JTC 1 Plenary Revised Presentation



what is new

work items

- ISO/IEC 15045-10 Business operational view Part 10: Coded domains
- ISO/IEC 19763-7 Metamodel Framework for Interoperability (MFI) Part 7: Metamodel for Service Registration
- ISO/IEC 19763-8 Metamodel Framework for Interoperability (MFI) Part 8:
 Metamodel for Role and Goal Registration
- ISO/IEC TR 19763-9 Metamodel Framework for Interoperability (MFI) Part
 9: On Demand Model Selection
- ISO/IEC 24706-1 Metadata for technical standards Document description elements
- ISO/IEC 24706-2 Metadata for technical standards URI naming and resolution techniques
- ISO/IEC 20943-5 Achieving metadata registry content consistency Part 5: Semantic Metadata Mapping Procedure
- ISO/IEC 20943-6 Metadata Content Consistency Part 6: Procedure of the Specification for the Semantic Web





what is new

Study periods

- Layering Ontologies Upon Data Exchange Agreements
- Integration and harmonization of 11179 and 19763 families of standards
- Registry of Registries (ROR)
- New Metadata Standards

Participants

- India has joined as a "P" member
- Indonesia has joined as an "O" member

Liaisons

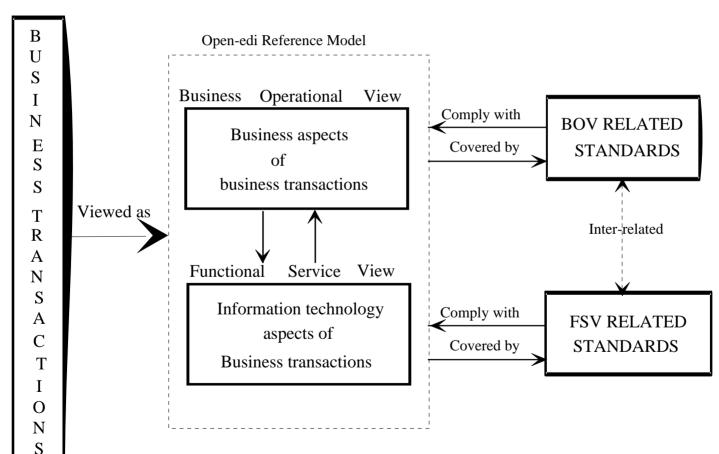
- New: Request Category C for: OASIS ebXML Registry TC
- New: Request Category C for: Data Management Association International
- Continuing: Internal Liaisons 31, External 15
 2009 JTC 1 Plenary





- Sent representative to ISO/IEC UNECE MoU/Management Committee
 - Wenfeng SUN see report at Agenda Item
 13.4
- Offer for appointment to JTC 1
 Delegation to ISO/IEC UNECE MoU
 Management Committee
 - Wenfeng SUN, YongJae KIM
- Vocabulary Management Agenda Item 6.21.1

what is new – eBusiness (WG1)



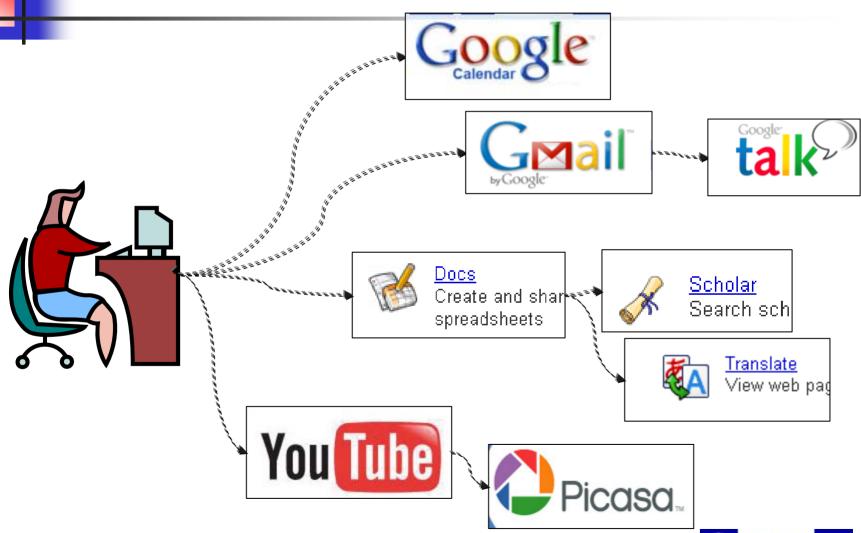


what is new - Metadata (WG2)

- Next generation of metadata registries (ISO/IEC 11179)
- New Metadata Standards
- Metamodel Framework for Interoperability Example for Cloud Computing

L

what is new - cloud computing



Various kinds of cloud

- Different requirements lead to different kinds of cloud
 - Google Application cloud
 - From improved searching engine to large scale infrastructure service
 - Amazon, SalesForce Platform cloud
 - Brokered SaaS e- e-business platform
 - Providing infrastructure as service, on which people could build their own applications
 - IBM Middleware cloud
 - Applications are supposed to be delivered on Internet by means of "service".
 - Providing middleware based on Internet
 - Providing computing platform for sale
 - Blue Cloud
 - Microsoft Windows on Internet
 - S+S

RGPS Metamodel Framework

for interoperation between cloud and client

Metamodel for cloud construction

Metamodels of the 4 elements

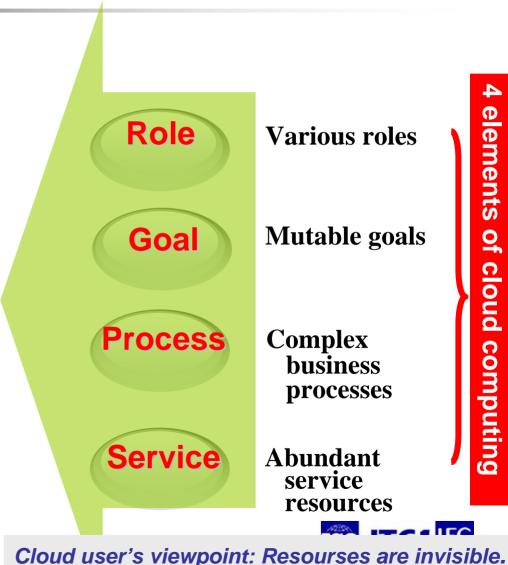
"Role"Metamodel

"Goal"Metamodel

"Process"Metamodel

"Service" Metamodel

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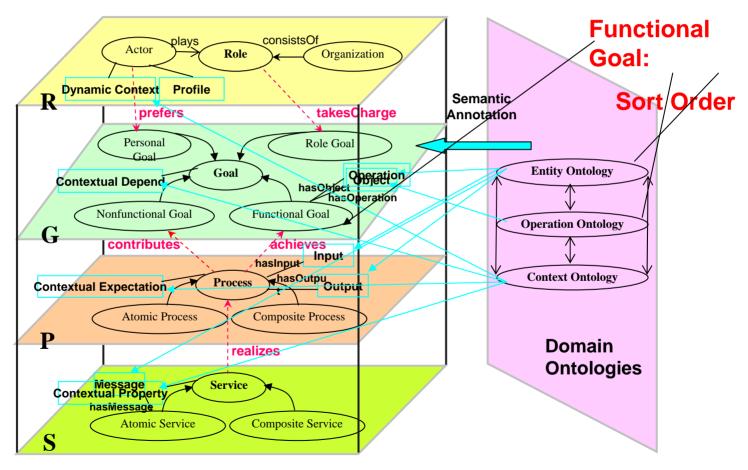


<u>elements</u>

cloud

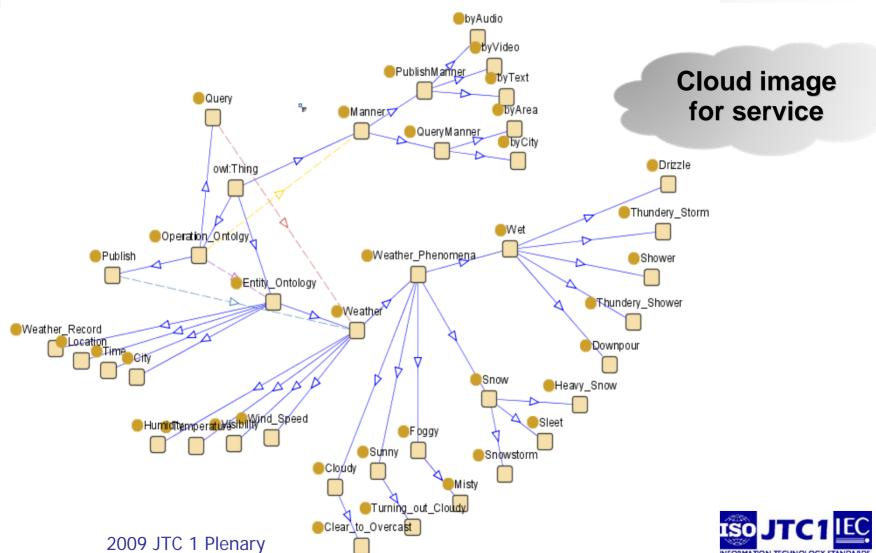
computing

what is new – Applying RGPS for Cloud Modeling

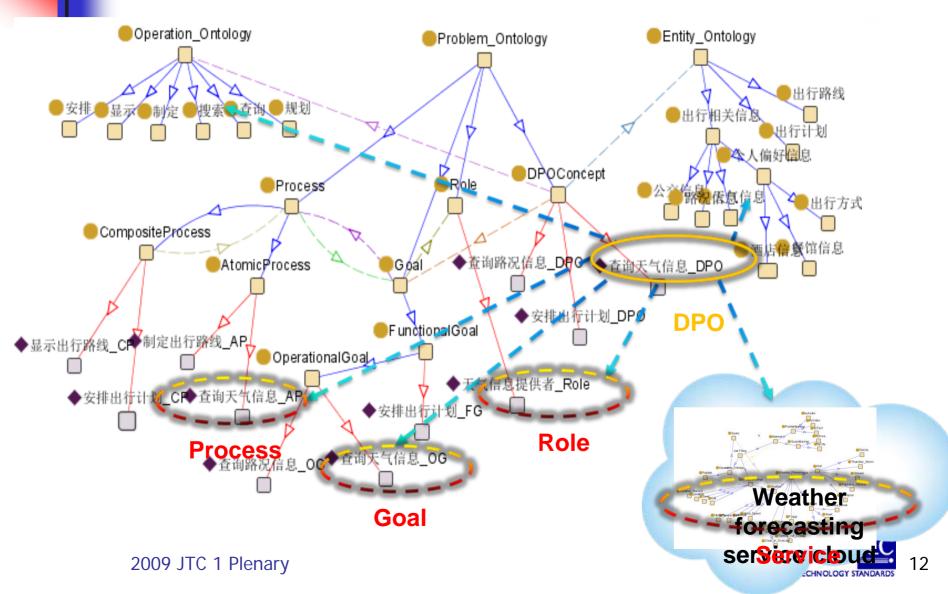




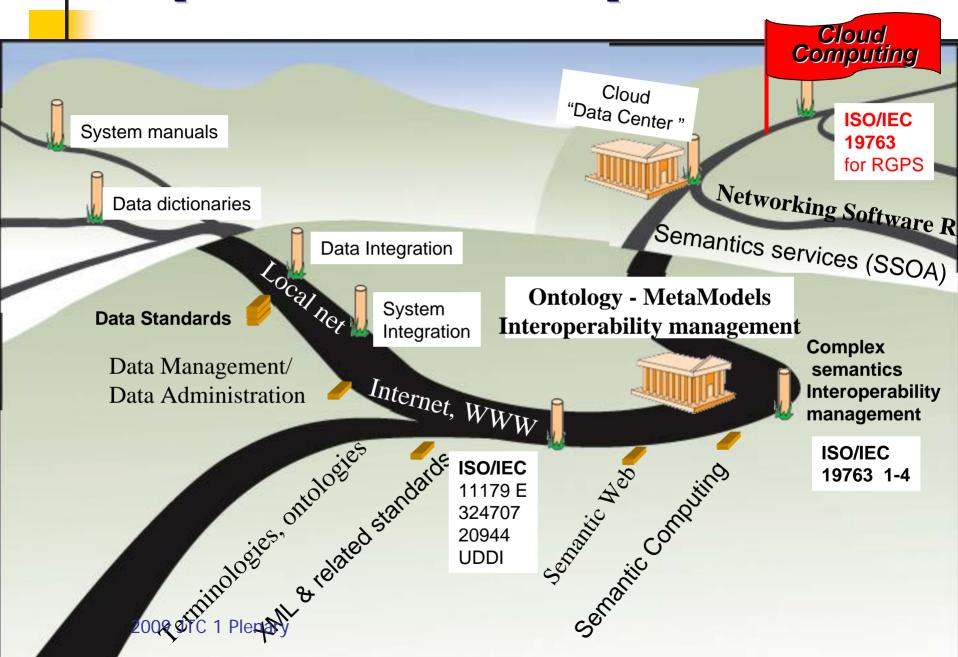
Weather forecasting service cloud image



What is new – Cloud Image and RGPS



Roadmap for cloud-client interoperation standard



4

what is new – SQL (WG3)

The following is a short, incomplete history of the SQL Standards – ISO/IEC 9075

- 1987 Initial ISO/IEC Standard
- 1989 Referential Integrity
- 1992 SQL2
- 1995 SQL/CLI (ODBC)
- 1996 SQL/PSM Procedural Language extensions
- 1999 User Defined Types
- 2003 SQL/XML
- 2008 Expansions and corrections



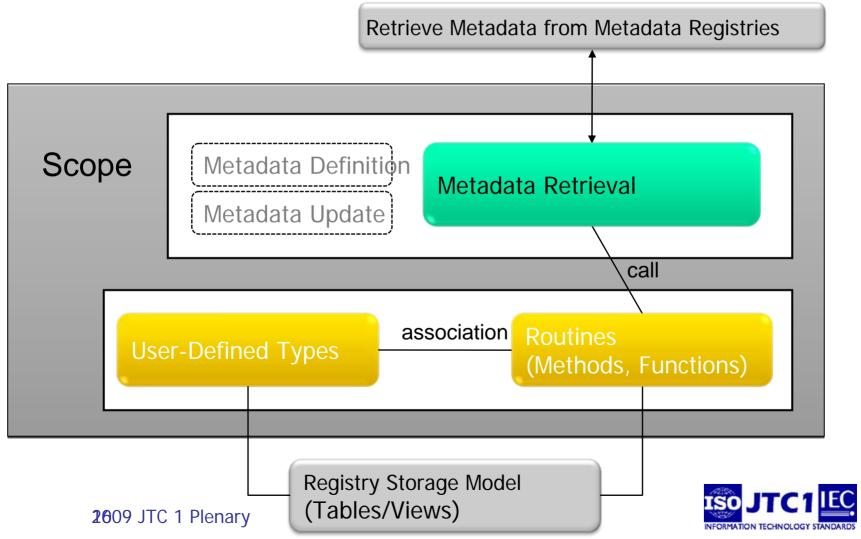
what is new - SQL (WG3)

- Work on Database Languages is active with the focus on a revised set of ISO/IEC 9075 parts.
- WG3 is continuing to track the W3C XQuery work as well as reviewing a variety of options for additional extensions and expansions of the SQL standards. The options currently under review are:
 - Addressing requirements to manage streaming data
 - Additional OLAP facilities for data warehousing
 - Supporting additional types of metadata
 - Increased interoperability
 - Enhanced security capabilities
 - Providing underlying support for semantic web capabilities





What is new – (WG 4) SQL/MM Part 8: Metadata Registry (MDR)





user engagement

Participation 2009

Attendance at SC 32 Plenary 60

New Standards Published5, since May

Total Standards Published 77

Active Projects

New Projects

user engagement

- requirements addressed
 - Vendors on the committee broadly engage users (customers)
 - Many SC 32 committee participants represent user communities
 - User requirements in the area of data/metadata management and interchange are in part driven by
 - rapid advancement of computer hardware/software/internet/web/platform capabilities
 - that enable advancing the capabilities provided by SC 32 standards
 - for improved efficiency and for new strategic applications.



user engagement

Challenges

- Users express needs for SC 32 standards that are aligned with standards developed by other SDOs.
 - Alignment takes considerable effort. Alignment increases the cost (and time) of producing standards,
 - but decreases the user implementation costs and increases the benefit to users of a standards based approach.

1

known implementations

- SQL (ISO/IEC 9075)
 - We have been developing the SQL Standard for over twenty-five years.
 - Large number of SQL implementations (Data Base Management Systems--DBMS)
 - More-or or-less adhere to the standard
 - Some companies have several implementations
 - SQL DBMSs are tools to implement databases and database applications
 - SQL AND Implementation Google: 19,500,000;Bing: 17,900,000 results





known implementations

- Some SC 32 standards are used to develop other standards and may not be implemented directly.
 - E.g., during development of the initial Dublin Core standard, the data elements definitions were developed according to ISO/IEC 11179
 Part 4 - Formulation of data definitions.

outreach

What we are saying:

- Press releases: ? (+ Web Sites!)
- Articles: Two from WG 2 in ISO Focus; Special Edition of the Journal of Semantics, Metadata, and Ontology; papers at conferences such as at ISWC.
- Annual Open Forum on Metadata Registries –
 Seoul Korea, June 2009 250 attendees
- Next Open Forum in Kunming, China, May, 2010

outreach

What is being said about us:

- Citings by external sources Google & (Bing) results:
 - SQL G:114,000,000 (B:72,400,000)
 - SQL AND "Press Release"
 G: 537,000 (B: 2,390,000)
 - SQL AND Article: G: 28,200,000
 (B: 39,000,000)
 - "ISO/IEC 11179": G: 349,000 (B: 30,700)
 - "ISO/IEC 24707": G: 13,900 (B: 334)
 - "ISO/IEC 19763": G: 22,200 (B: 2,690)

challenges

- impediments to success
 - Failure to participate, e.g., return ballots, by some P members
 - Caused ballots to fail per JTC 1 procedures
 - Requested assistance from ITTF
 - If can't respond to ballots, then shift to "O" member
 - Helped to resolve some problems
 - Found communications not getting to correct NB contact
 - One NBs switched to "O" status
 - One NB dropped



issues or needs

- resource constraints
 - Could use more people, money, time ...
 - SDO Support
 - R&D Support

2010

- new directions
- date/location of next SC plenary
 - Kunming China, May 2010



Acknowledgements

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