

## ISO/IEC JTC 1 N9832

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# ISO/IEC JTC 1 SC 32

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



# what is new

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## ■ 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

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- Study periods

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

- Participants

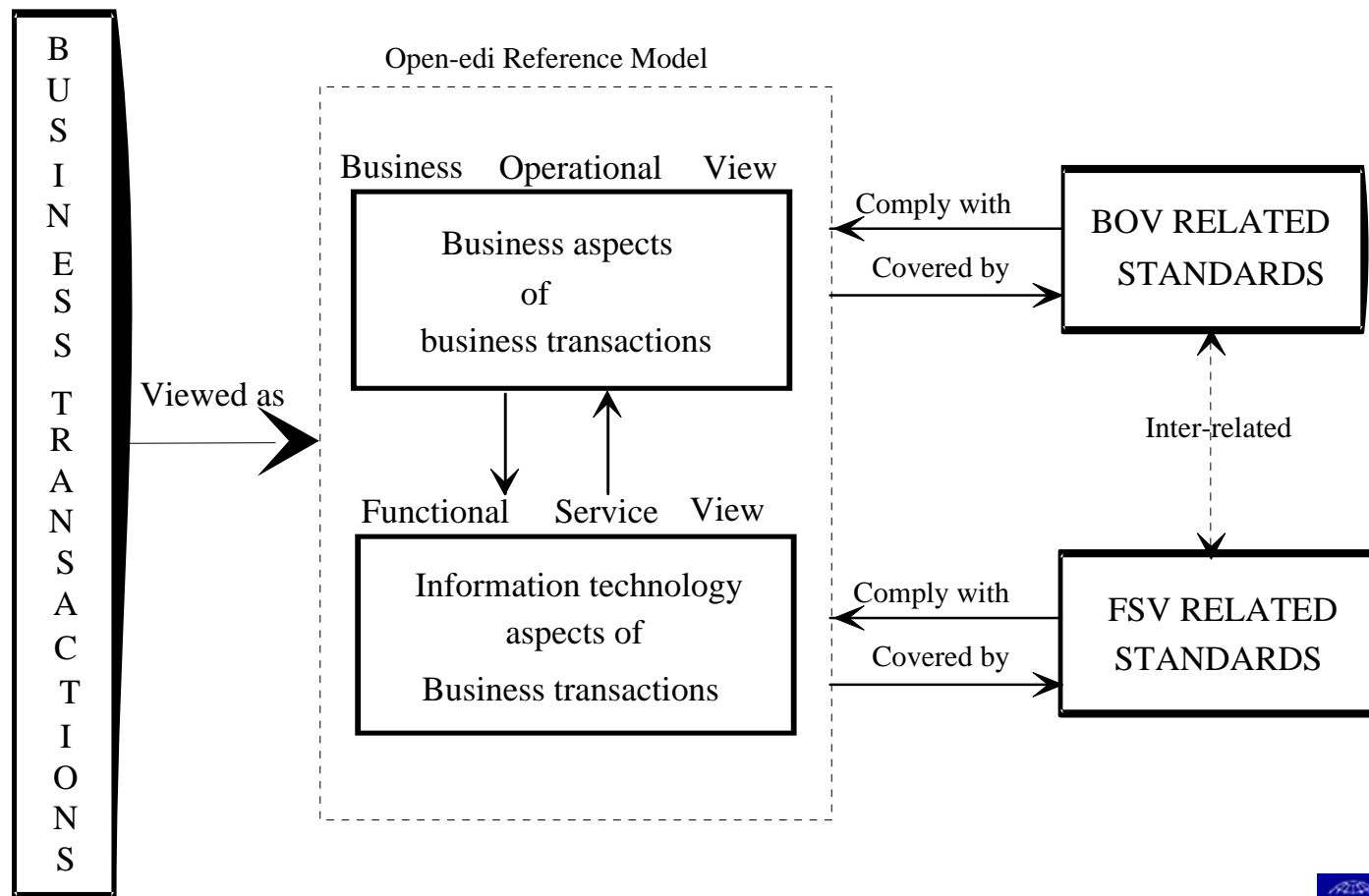
- India has joined as a "P" member
- Indonesia has joined as an "O" member

- 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

# what is new – eBusiness (WG1)



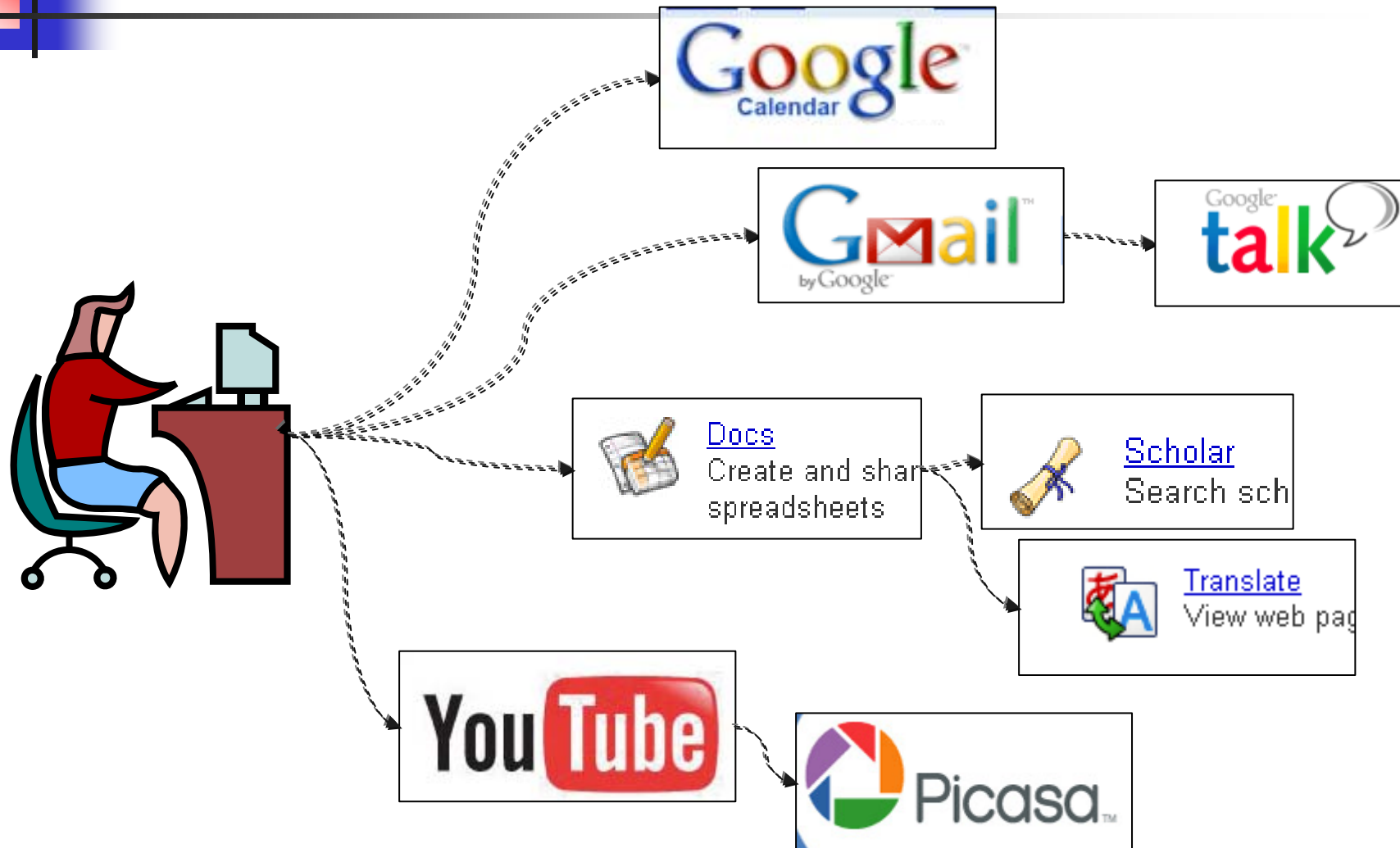


# what is new – Metadata (WG2)

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

# what is new - cloud computing





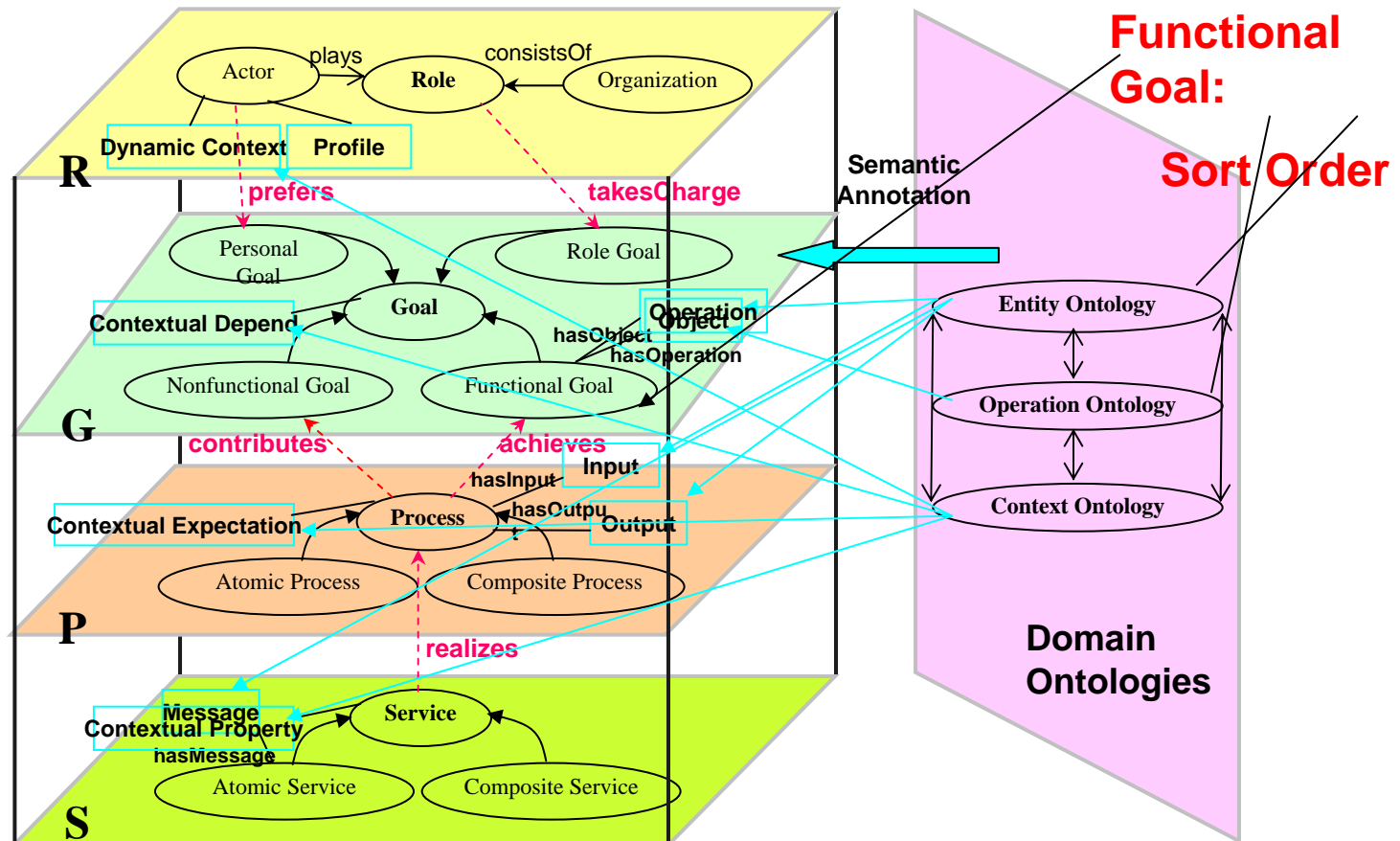
# Various kinds of cloud

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- 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
    - Azure .....



# what is new – Applying RGPS for Cloud Modeling



# 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

Role

Various roles

Goal

Mutable goals

Process

Complex business processes

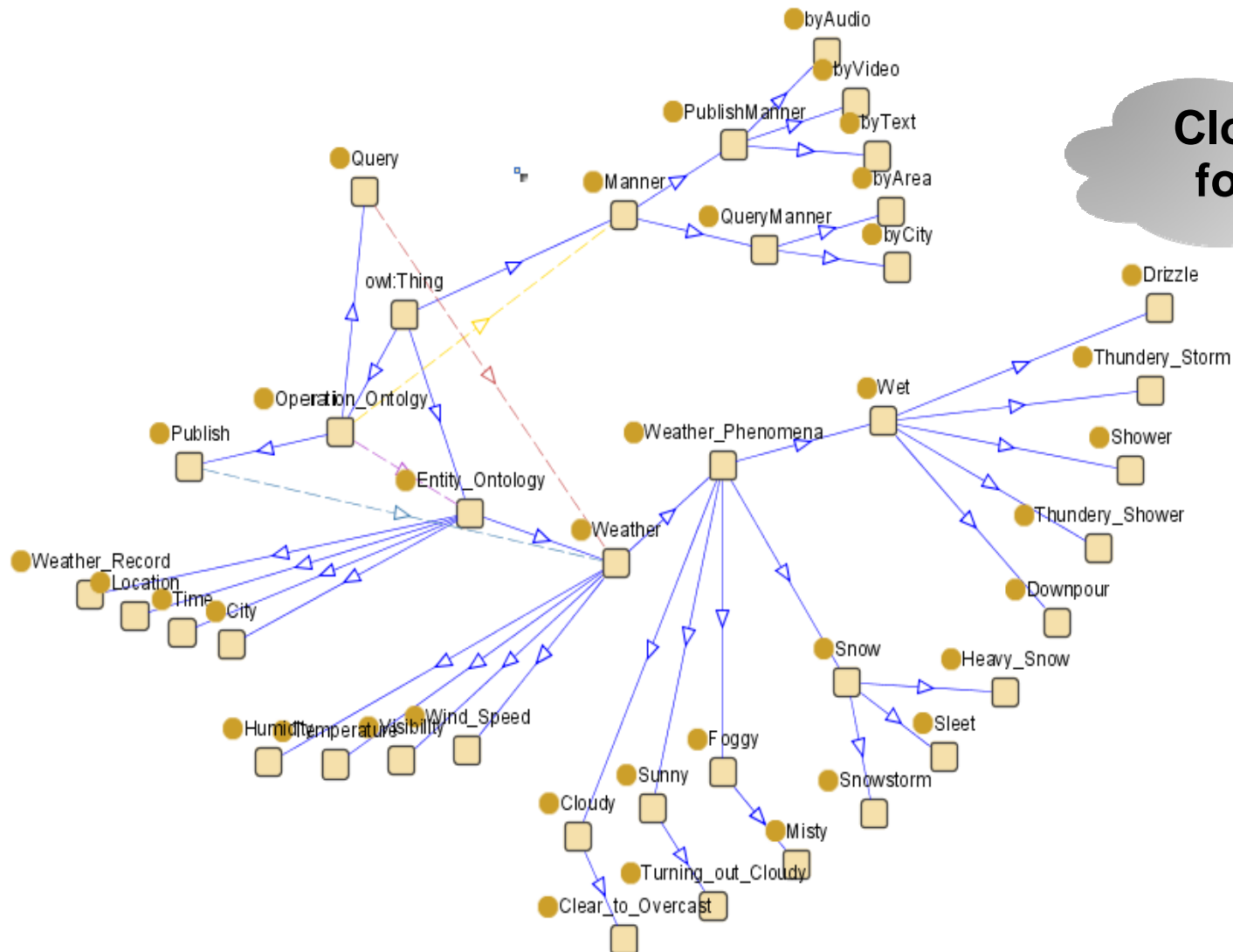
Service

Abundant service resources

4 elements of cloud computing

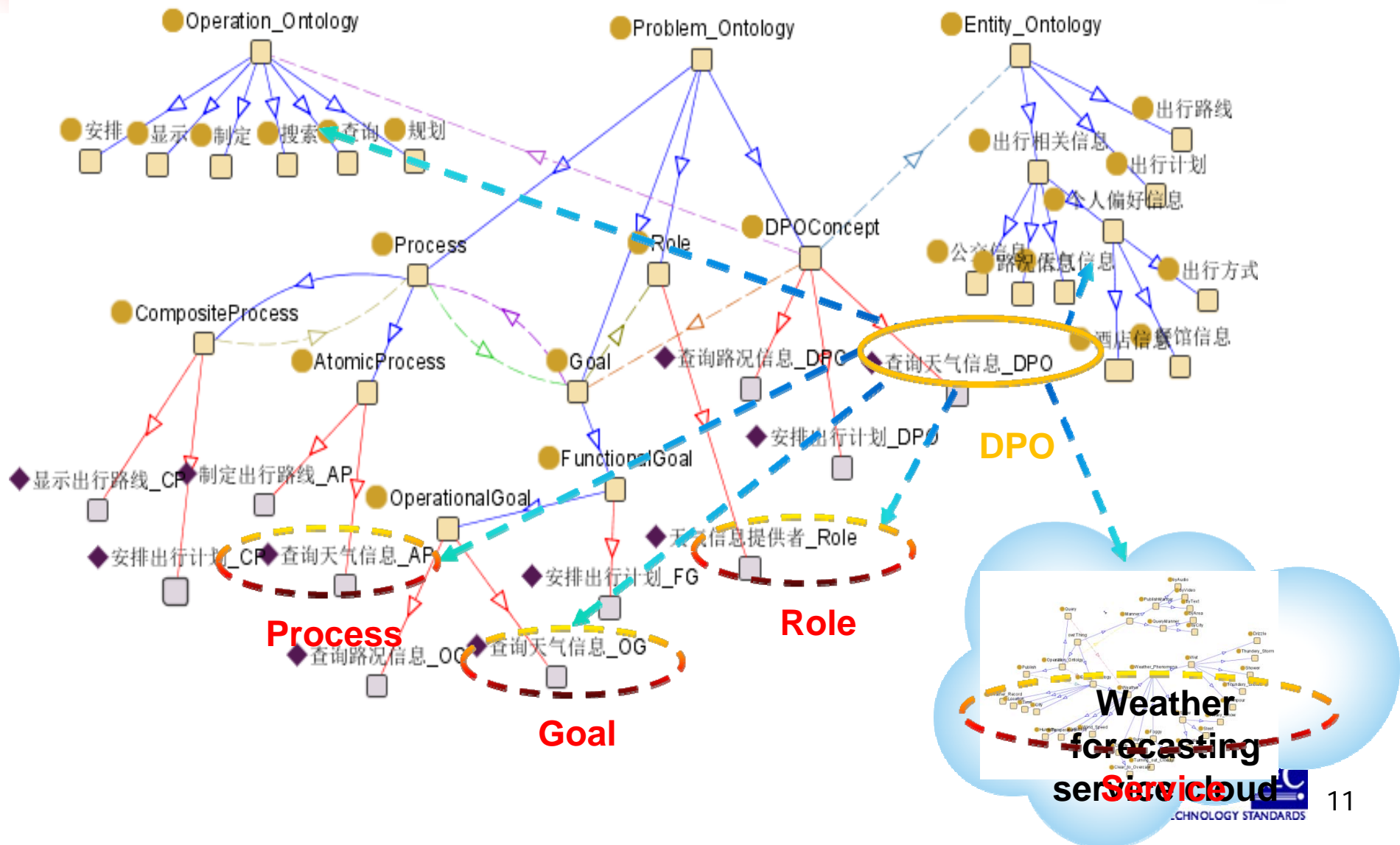
Cloud user's viewpoint: Resources are invisible.

# Weather forecasting service cloud image

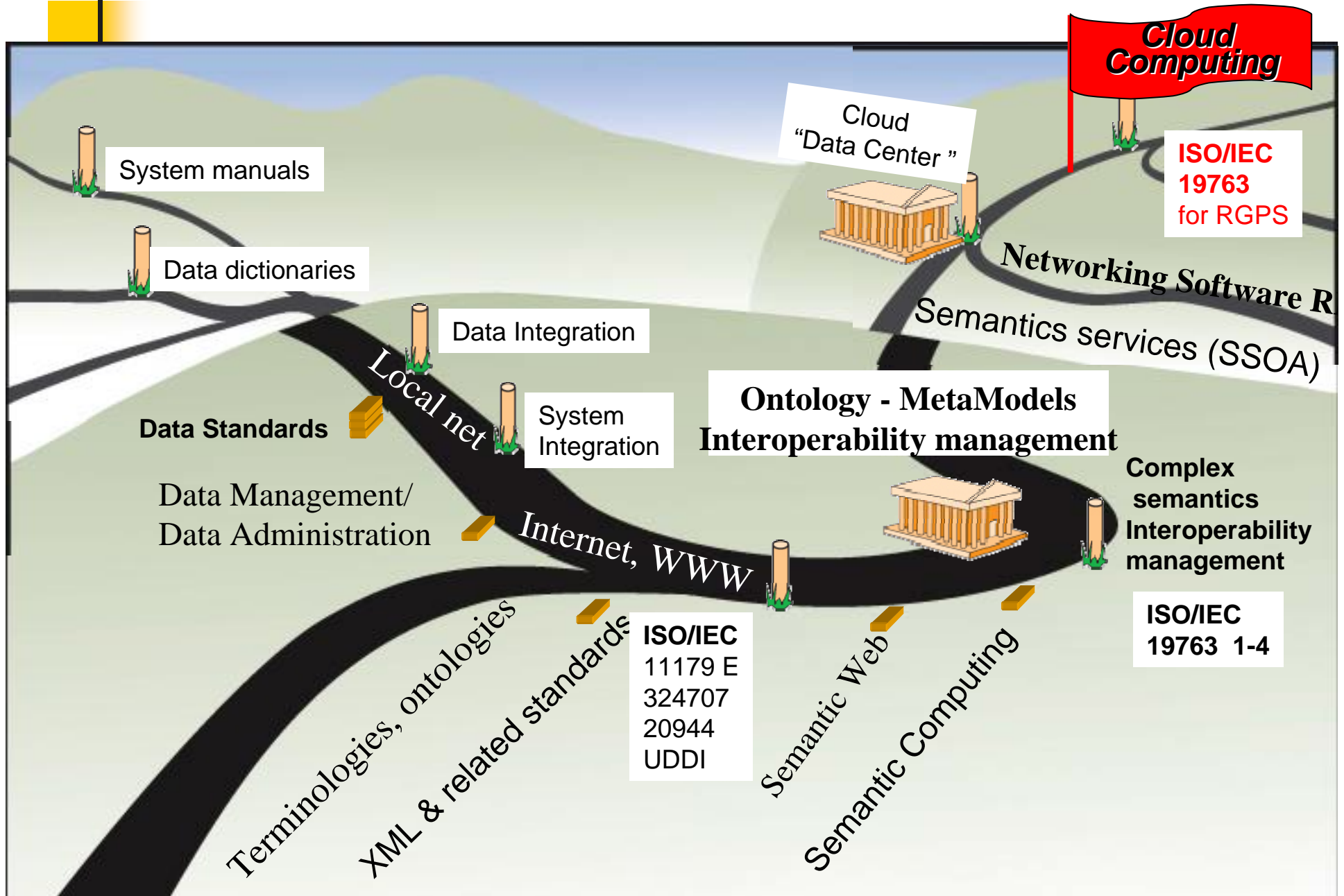


Cloud image  
for service

# What is new – Cloud Image and RGPS



# Roadmap for cloud-client interoperation standard





# What is new – SQL (WG 3)

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- We have been developing the SQL Standard for over twenty twenty-five years.
- Large number of SQL implementations
- More-or or-less adhere to the standard
- Some companies have several implementations
- SQL is a tool to implement databases and database applications



# what is new – SQL (WG3)

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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)

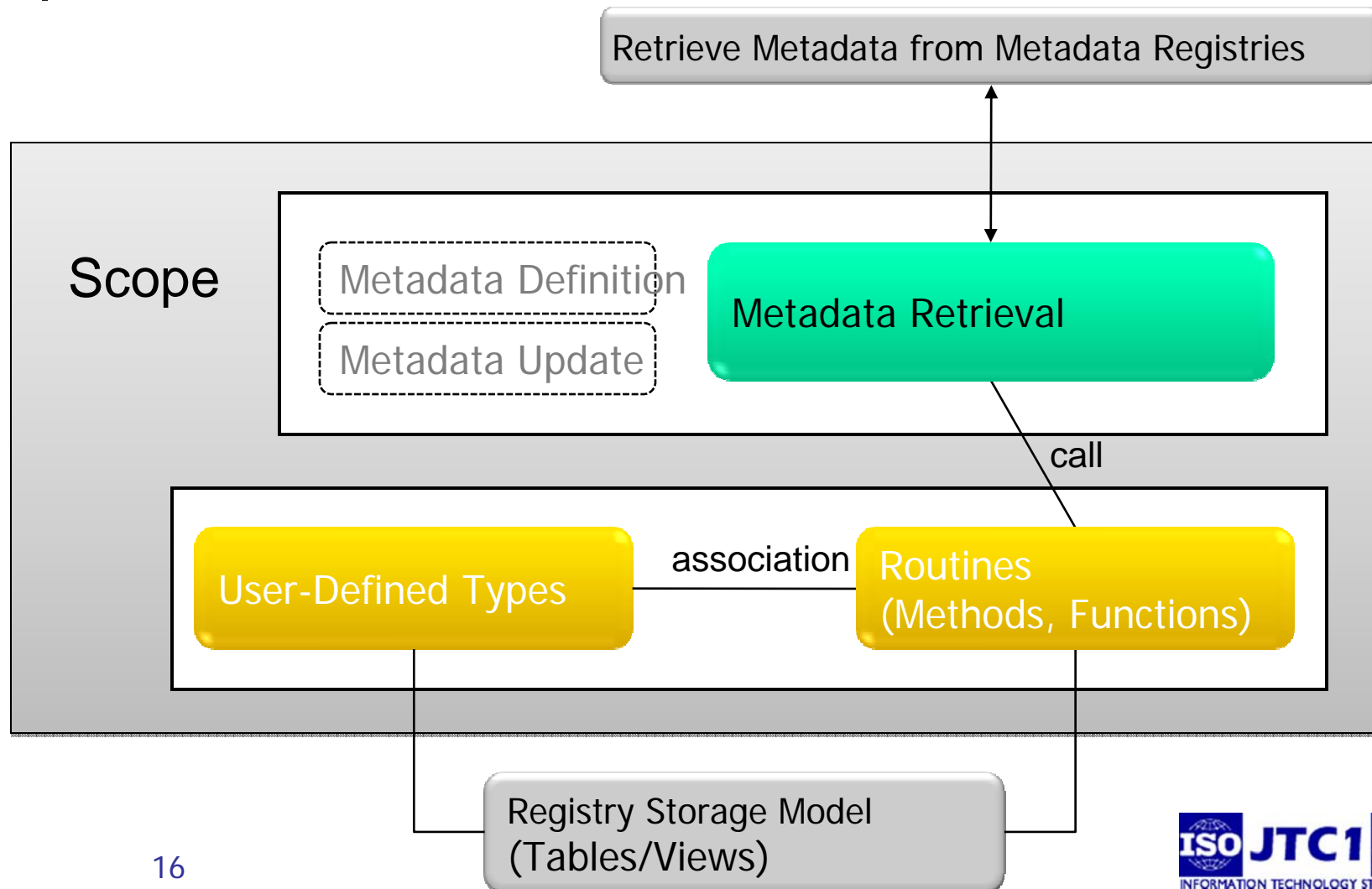
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- Work on Database Languages is active with the focus on a revised set of ISO/IEC 9075 parts.
- WG3 is continuing to track the W3C XQuery work as well as reviewing a variety of options for additional extensions and expansions of the SQL standards. 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

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- Participation 2009

- Attendance at SC 32 Plenary 60
- New Standards Published 5, since May
- Total Standards Published 77
- Active Projects 30
- New Projects 5



# user engagement

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- requirements addressed
  - Vendors on the committee broadly engage users (customers)
  - Many committee members represent user communities
  - User requirements in the area of data/metadata management and interchange are based on rapid advancement of computer hardware/software/internet/web/platform capabilities, needs for improved efficiency, and possibility of strategic new applications.



# user engagement

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## ■ Challenges

- Users need 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.



# known implementations

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- SQL (ISO/IEC 9075)
  - We have been developing the SQL Standard for over twenty twenty-five years.
  - Large number of SQL implementations (data base management systems)
  - More-or or-less adhere to the standard
  - Some companies have several implementations
  - SQL is a tool to implement databases and database applications
  - SQL AND Implementation – Google: 19,500,000; Bing: 17,900,000 results



# known implementations

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- 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 11179-4 Formulation of data definitions.



# outreach

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What we are saying:

- Press releases: ? (+ Web Sites!)
- Articles: Two from WG 2 in ISO Focus
- Annual Open Forum on Metadata Registries – Seoul Korea, June 2009 - 250 attendees
- Next Open Forum in Kunming, China, May, 2010



# outreach

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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

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- 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
    - Still a work in progress



# issues or needs

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



# 2010

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