UN/CEFACT conformance and interoperability of standards

Lunch and learn presentation at the UN/CEFACT Forum
October 28, 2014

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About the project

• Project proposal approved by Bureau
• Participation is open to experts nominated by HoD
• A project team has been established and is in operation

• ... investigate how self-conformance statements should be specified and be made publically available ...

• The project will document requirements related to
  • ways in which user communities can identify and declare conformance with standards in order to foster interoperability,
  • how self-conformance statements can be made publically available to improve transparency in the actual implementation and use of standards.

• Expected deliverables
  • The project deliverable will be a requirements document that will elaborate on the issues involved and provide an outline of what actions would be required to provide a self-conformance service.
The challenge …

• Different versions?
• Different subset?
• Different code lists?

• Different data format?
• …

My system is based on CEFACT standards

So is mine!
Then why can’t I read your data into my system?

How to achieve true semantic interoperability in a many-to-many message exchange environment?
Conformance fosters Interoperability

Interoperability

*The ability of computer systems to understand and act on received message as expected*

• Interoperability depends on a common implementation and understanding of the standards → conformance

Conformance:

*To what extent my system has implemented the referenced standard*
Levels of conformance
Using terminology from TOGAF

Irrelevant
Compliant
Fully conformant

Consistent
Conformant
Non-conformant
### Conformance to what?
“EDIFACT domain”

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<thead>
<tr>
<th>Level of interoperability</th>
<th>Technical specifications (methodology)</th>
<th>Business standards</th>
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**Conformance to what?**

“XML domain”

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<td>Technical</td>
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The conformance statement

• Used by an SDO, a software provider or an end user to make a public statement on how they have implemented a given UN/CEFACT technical specification or business standard.

• Made openly and publically available through a Conformance Registry.
Implication
The SDO scenario

• Conformance to one of the CEFACT technical specifications (e.g. the CEFACT NDR) will typically only be applicable for SDOs who wish to utilize all or part of the CEFACT work in combination with some of their own specifications.

• A conceivable scenarios is where an SDO has developed their own content models (BRS) and wish to provide the market with their own branded XML schemas, but don't want to invest in their own NDR.
Implication
The end user scenario

• Conformance to a CEFACT business standard (e.g. a CEFACT XML message) will typically be applicable for individual users and software providers, as well as SDOs.

• The key focus is to document how an individual XML instance document conforms to the CEFACT published XML schema, and thereby establish the level of interoperability in actual message exchange.
Why bother (the value proposition)?

• It is believed that the use and open availability of conformance statements will foster interoperability and bring benefits to all involved.

• UNCEFACT
  • Visibility on who are using our deliverables.
  • Input to the ongoing maintenance (change requests) and thereby facilitate convergence over time.

• Other standards developing organizations (SDOs)
  • Gain recognition for their implementation guidelines.

• Systems providers
  • Recognized for providing interoperable software solutions.

• End users
  • Be sure that the software solution used is interoperable with others.
Recommendations (this far)

1. UN/CEFACT should adopt a precise, consistent and preferably well known terminology
   • The project team recommends to adopt the terminology used in TOGAF.

2. UN/CEFACT should ensure that there are clear conformance clause(s) for every standard and technical specification (e.g. BRS and RSM as well as XML and NDR).
   • Precise conformance clauses is a prerequisite for allowing user to declare how their implementation/use conforms to the base standard.

3. UN/CEFACT should promote and encourage the use of conformance statements towards its user communities – SDOs as well as actual implementers.
   • This is believed to be a good tool for communicating how a given standard is implemented and used.

4. UN/CEFACT should establish, possibly in corporation with other organizations, a conformance registry where users and SDOs can make their self-declaration of conformance visible.
   • Visibility of conformance is believed to promote interoperability.
We need you!

• We need more participants – more ideas, more comments

• Please contact the project convener at
  
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Thank you for your attention