

# Creating a Marketplace for Standards Adoption

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# ABOUT DRUMMOND GROUP INC

- Drummond Group leads global certifications and tests focused on an entire life-cycle Interoperability Methodology including standards development to repeated interoperability certification events
- Drummond Group is the world leader with over fifty global interoperability test events composed of over a thousand products implementations to date.
- Organizations such as CDC, PIDX, FDA, GSA, Liberty Alliance, and GS1 International have outsourced their testing or audit needs to Drummond Group.
- Repeat customers include: Microsoft, EDS, GXS, IBM, HP, Oracle, SAP, Seeburger, Sun, and a host of small companies.
- Countries around the globe including UK, Portugal, Spain, Germany, Japan, France, Russia, Brazil, Japan, China, Singapore, and Canada.
- Chaired efforts in UN/CeFACT, OASIS and IETF.

# CREATING A UNIFORM MARKETPLACE FOR INTEROPERABILITY

- Four general steps necessary to produce and maintain conformant and interoperable standards for the Smart Grid.
  - Producing a uniform marketplace for the standard(s) products
  - Facilitating market adoption of the conformant and IOP products
  - Producing products that are conformant and IOP to the standard
  - Constructing the conformance/interoperability life cycle maintenance throughout the years
- Results: reduce cost of products, generate more interoperable products and additional functionality across the interoperable products set.

# ITEMS FOR CONSIDERATION

- Interoperability has a shelf-life of about 12-18 months in a growing active marketplace among the products.
- A life-cycle Methodology view, not a test focus, is the key element of a successful Conformance or Interoperability Program in an industry.
- Conformance only engenders Interoperability, it almost never produces Interoperability.
- Interoperability only engenders Conformance, it almost never produces it completely.
- Conformance testing with less than around 10 products in the marketplace usually does NOT produce Conformant products because the conformance engine does not become 'clean'.
  - See mathematical proofs from Grid-Interop 2008:  
[www.pointview.com/data/files/2/1338/1084.pdf](http://www.pointview.com/data/files/2/1338/1084.pdf) ,
  - [www.sessionview.com/data/2008/11/26/pdf/Rik-Drummond-3464.pdf](http://www.sessionview.com/data/2008/11/26/pdf/Rik-Drummond-3464.pdf)

# PRODUCE A UNIFORM MARKETPLACE

- The smart grid needs a comprehensive set of common multi-state rules developed and maintained in much the same manner as the Uniform Commercial Code (UCC) has accomplished for commerce. Just like the UCC provides the foundation for interstate commerce, national guidelines are needed to create the improved smart grid. These UCC rules are developed by the states as a group and 'legally adopted' by the states – not mandated from a federal level.
- The sanctioned standard lists could be created by the states jointly (maybe with NIST's and others' help) and then formally adopted by the state law makers or regulators creating a more uniform marketplace for vendors to sell products within.
- Produce a largely common marketplace for products necessary to accomplish interoperability, making it much more cost effective and efficient for all.
- Secondary effects such as: reduced maintenance cost, easier-to-find support expertise, less likelihood of obsolescence, etc.

# FACILITATING MARKET ADOPTION OF THE IOP PRODUCTS

- This is generally specific to the standard and the industry and will not be discussed at length here. However, there are some principles that apply to all:
  - create/select an open technical standard to serve the states
  - obtain endorsement of this new standard by industry and states
  - create Life-cycle Methodology and test cases and verify product market readiness
  - create a certification program to ensure interoperability of all products with an industry “certification” board to oversee test plan development, marketing, standards development, life cycle product certification maintenance
  - select a neutral organization to administer test procedures and certify results
  - incorporate user feedback of implemented products and applications back into the standards and test procedures to improve the effort and maintain continuity between deployed and new product entries

# PRODUCING PRODUCTS THAT ARE CONFORMANT AND IOP

- Despite the careful and thorough work of a standards body, every standard leaves out rules or conditions which affect the implementation.
- Most standards have optional components using words such as "SHOULD" or "MAY" or gray areas where the requirement is not clear or can be misinterpreted.
- Thus, end-user profiles are often necessary.
- In order to create products and services that are both conformant to the standard and are interoperable, comprehensive full-matrix Interoperability Methodology is an essential.

# CONSTRUCTING THE IOP LIFE CYCLE MAINTENANCE THRU THE YEARS

- Once a market adopts a standard, interoperability testing is necessary for continued market growth.
- The natural life-cycle of software products to make code changes and system upgrades with different version releases. These slight changes can create unforeseen results producing non-interoperability. In addition, new vendors enter the market as potential trading partners and need testing opportunities.
- Interoperability tests need to be periodic in nature and repeated on a regular basis.
  - Previous products and applications must continue their participation in the testing.
  - Repeated interoperability testing allows for new applications and updated versions of existing products to be phased in but first tested with current applications.
  - By certifying over a range of products, both older and newer versions give user communities a wide selection and confidence that all are interoperable for them and their business partners.
- Industry adoption can only happen when industry leaders have high confidence of interoperability in a large selection of products.

# Summary

- Wide scale market adoption of IOP/Conformant Products often fails because:
  - Unprofessional testing methodologies
  - A test vs. a life-cycle focus
  - Advertising IOP when products have only been conformance tested.
  - Fragmented/ small market
  - Lack of coordination with the end-users