



The Convergence of Specifications

ATA eBusiness Forum – October 2008

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Topics of Discussion

- **Background and where specifications are today**
- **Why XML and why now?**
- **In what context is convergence being discussed**
- **High-Level overview of ATA Specifications**
- **Discuss the concept of specification convergence and Life-Cycle Management**
- **Where are the specifications going and what is your role?**

Background

- **Over the past 10 years eBusiness specifications have been evolving and maturing to meet new technology and business demands.**
- **New specifications are being developed to address on-aircraft technology and increased data security requirements.**
- **Adoption or harmonization of ATA eBusiness standards with other international organizations has been growing**

ATA Specifications today

- **Provide the tools to enable companies to efficiently manage asset life-cycle**
- **Enable opportunities to improve aircraft part and systems performance**
- **Allow more efficient operations through reuse of content**
- **Reduce integration costs between business partners**
- **Enable lower internal IT development costs by having defined specifications and business rules**

Why XML?

- **XML = Extensible Mark Up Language**
- **XML became a W3C (language governing body) in 1998**
- **XML was designed to carry data not display data (HTML)**
- **XML was created to structure, store and transport data**

The following example is a note to Airline from Vendor, stored as XML:

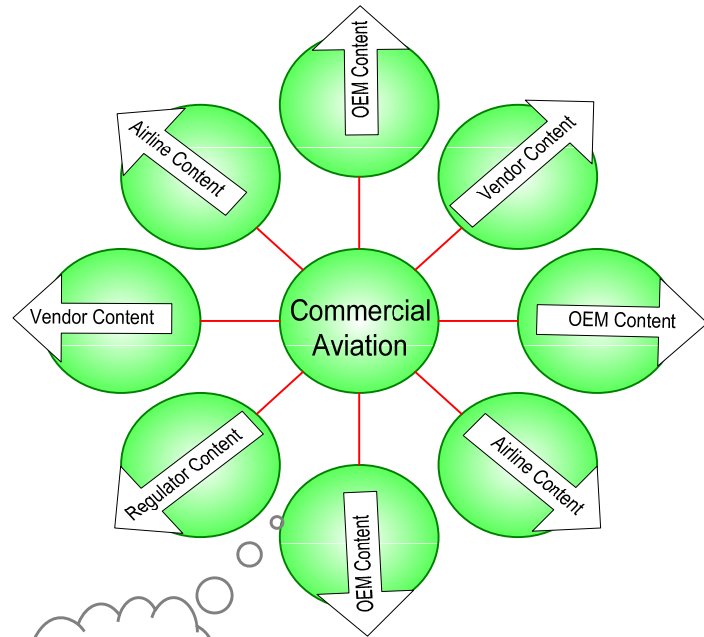
```
<note>
<to>Airline</to>
<from>Vendor</from>
<heading>Notification: CMM A12345 Rev 10</heading>
<body>CMM A12345 Revision 10 has been released and is available
for download at www.vendor.com.</body>
</note>
```

Why Now?

- **XML has become the most common language to transport data over the web and within networks between different applications**
- **Structuring of stored XML data allows global search engines to perform more efficiently in data warehouses**
- **Easier to annotate, manipulate and describe content of data transactions versus old flat file**

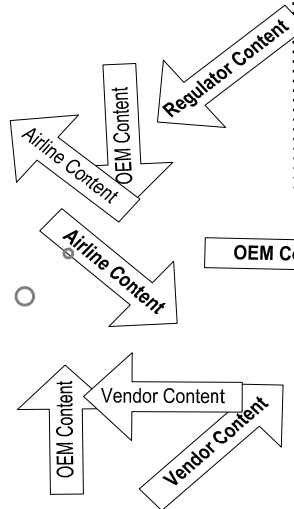
Operational Convergence

Convergence is not possible without standards



Pretty Picture, but ...

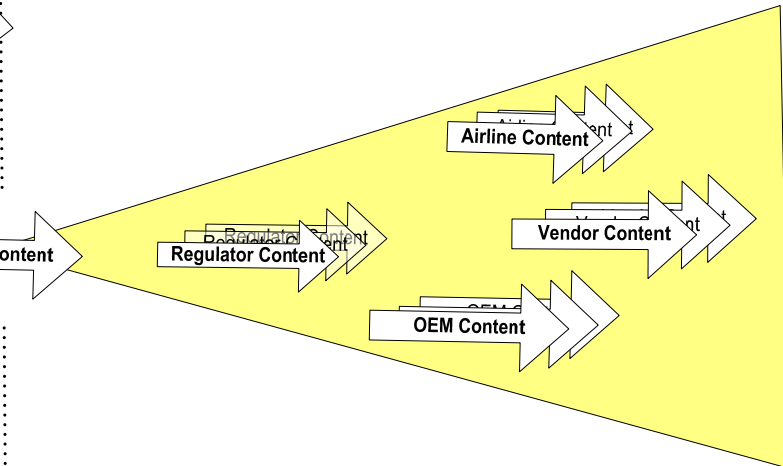
... Reality "bites"



- Collaboration within and between distinct corporate operations
- Integration between OEM, Repair Vendors, and Customers
- Consistency across national, regional, and other regulatory domains
- Consistency with procurement, records and metrics

XML Standards enable convergence

Standards Making



Adoption and Standardization



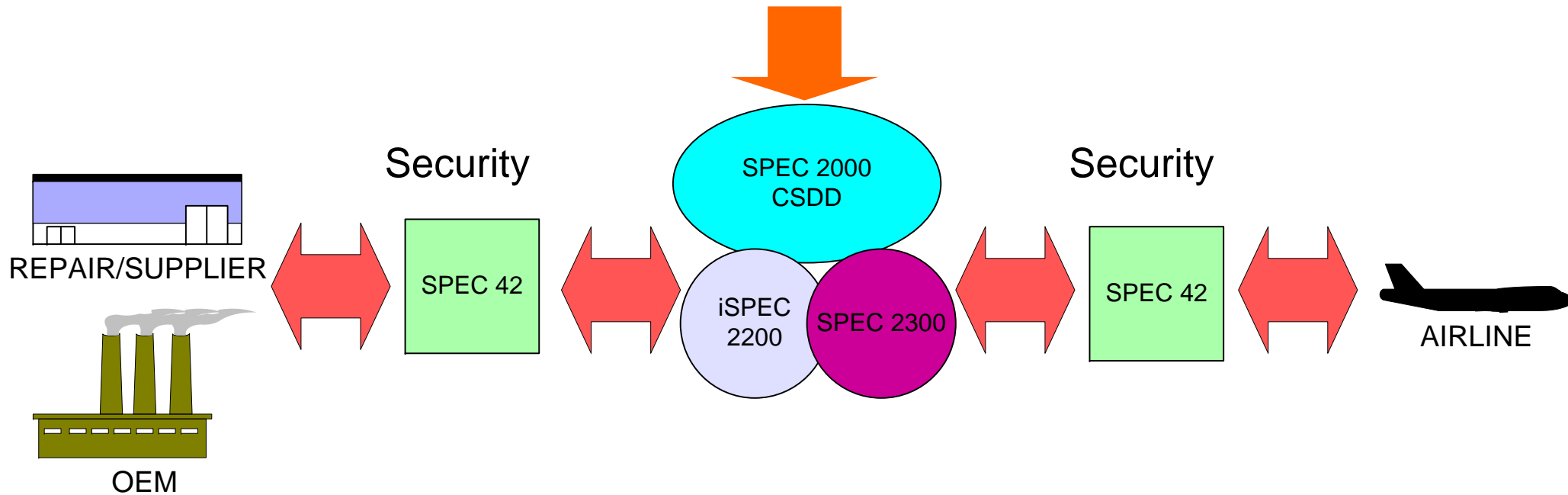
- ✓ Single source of truth across operations
- ✓ Content reuse
- ✓ Workflow automation
- ✓ Automated validation of Content
- ✓ Full life-cycle tracability
- ✓ Commoditization of systems and components

ATA Spec Transformation

- **Spec 2000 – Aviation Business Transactions**
 - 17 Chapters
 - 7 Chapters have in development or published XML transactions
 - 2 Chapters are planning on XML development
 - Remaining chapters are unplanned at this point or are for information only (no transactions)
- **iSpec 2200 – Aviation Maintenance Information**
 - Uses SGML which can be easily migrated to XML as required
- **Spec 2300 – Data Exchange Stds for Flight Operations**
 - Uses XML transactions
- **Spec 42 – Digital Information Security**
 - Provides guidance for electronic signatures

The High-Level Overview

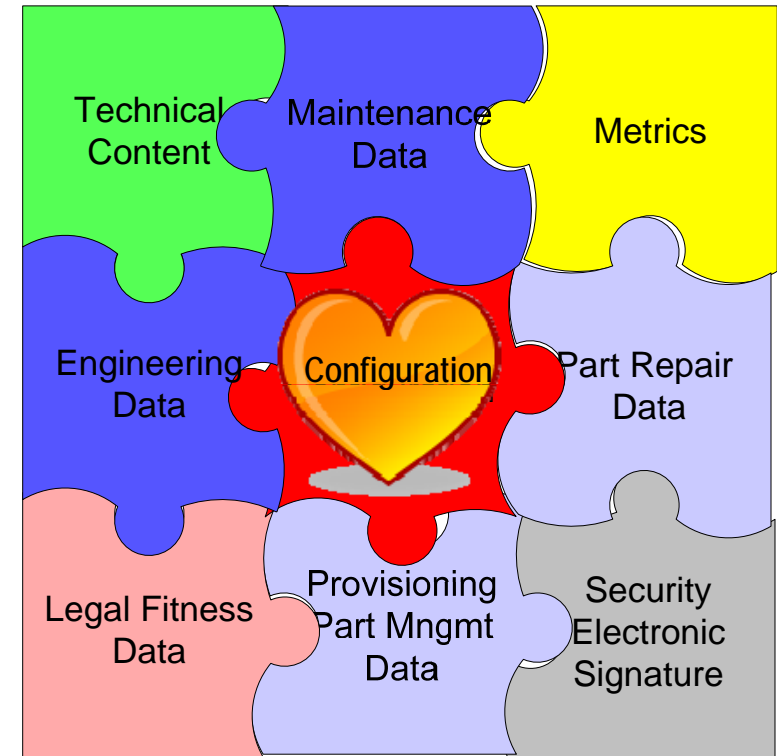
Metrics, transactions, configuration and engineering data, technical support content.



The combination of specifications provides a large toolset to enable trading partner B2B transactions.

Progress Leads to Convergence

- **Specification for electronic signature and security**
- **Metrics to measure performance and identify improvement opportunities**
- **Maintenance, Engineering and Flight technical content to support operations**
- **Part transaction information for material management**
- **Engineering and Maintenance data for configuration management**
- **Legal fitness content for regulatory compliance**



Configuration Management – The Heart of the Aircraft Life- Cycle

Converge Configuration Management and XML standards

Regardless of whether you are a manufacturer, operator or support organization (repair / parts broker), configuration and legal fitness are the keys to asset life-cycle management

At the heart of commercial aviation is the “aircraft”

- To ensure that the heart stays healthy
 - One must know how the heart works
 - One must monitor the heart
 - One must feed the heart nutrients
- XML based content represents vital blood, the enabler of the life-cycle process



The convergence of configuration management and XML based content management bind commercial aviation, integrating both internal and external business partners and processes

Manage The Configuration

Regardless of whether you are a manufacturer, operator or support organization (repair / parts broker), configuration and legal fitness are the keys to asset life-cycle management

ATA Specifications today

- **Provide the tools to enable companies to efficiently manage asset life-cycle**
- **Enable opportunities to improve aircraft part and systems performance**
- **Allow more efficient operations thru reuse of content**
- **Reduce integration costs between business partners**

Continuing Evolution

- **ATA ESG is identifying value added flat file format specifications to be migrated to XML**
- **ATA is working with the S1000D technical content community to identify harmonization opportunities between S1000D and iSpec 2200**
- **Development of new legal/regulatory forms in XML such as FAA 8110.**
- **Expanding the collection of metrics to enable common performance monitoring KPIs and adding new definitions to the CSDD.**
- **Adding a Quality process into the XML development to insure consistency yet flexibility.**

What Can You Do?

- **Participate in specification development – diversity of ideas = ingenuity and progress**
- **Identify areas of collaboration with other standards orgs that will enhance or support ATA's eBusiness strategy**
- **Working Groups indentify old flat formats for replacement or retirement to continue modernization**
- **Vendors provide the technology to support migration to XML ATA standards**
- **Finally.....**

USE THE STANDARDS!

