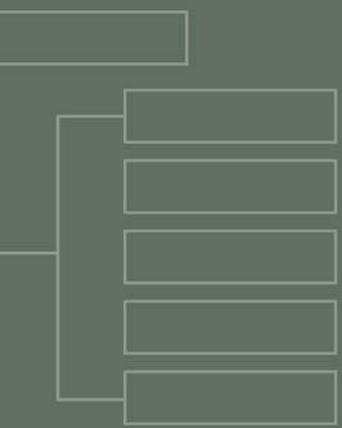




OASIS Conceptual Model for Web Services

March 2002

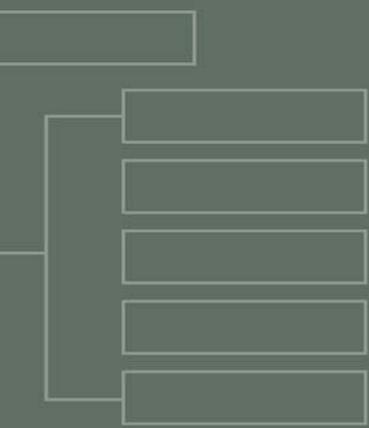
Karl Best
OASIS Vice President



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Agenda

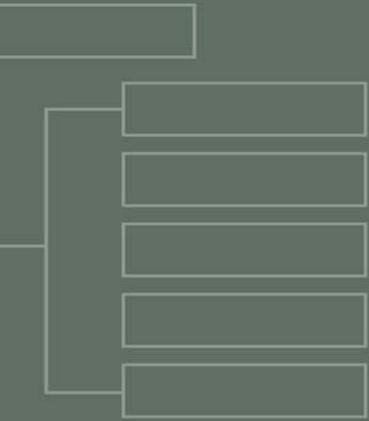
- **Why do we need a conceptual model?**
- **The OASIS Conceptual Model**
- **Mapping of OASIS TCs to the Conceptual Model**



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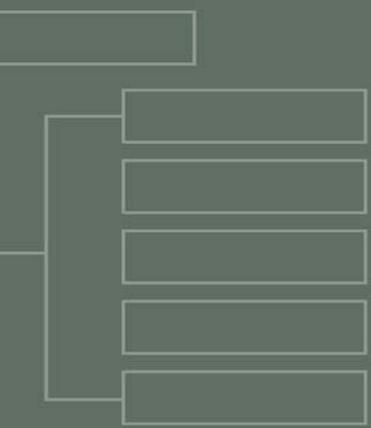
Why an OASIS Conceptual Model?

- **A descriptive, strategic framework to promote coordination of OASIS technical efforts**
- **A communication vehicle to promote collaboration with other industry standards organizations**
- **Describes high-level architecture components of web service and e-business solutions**

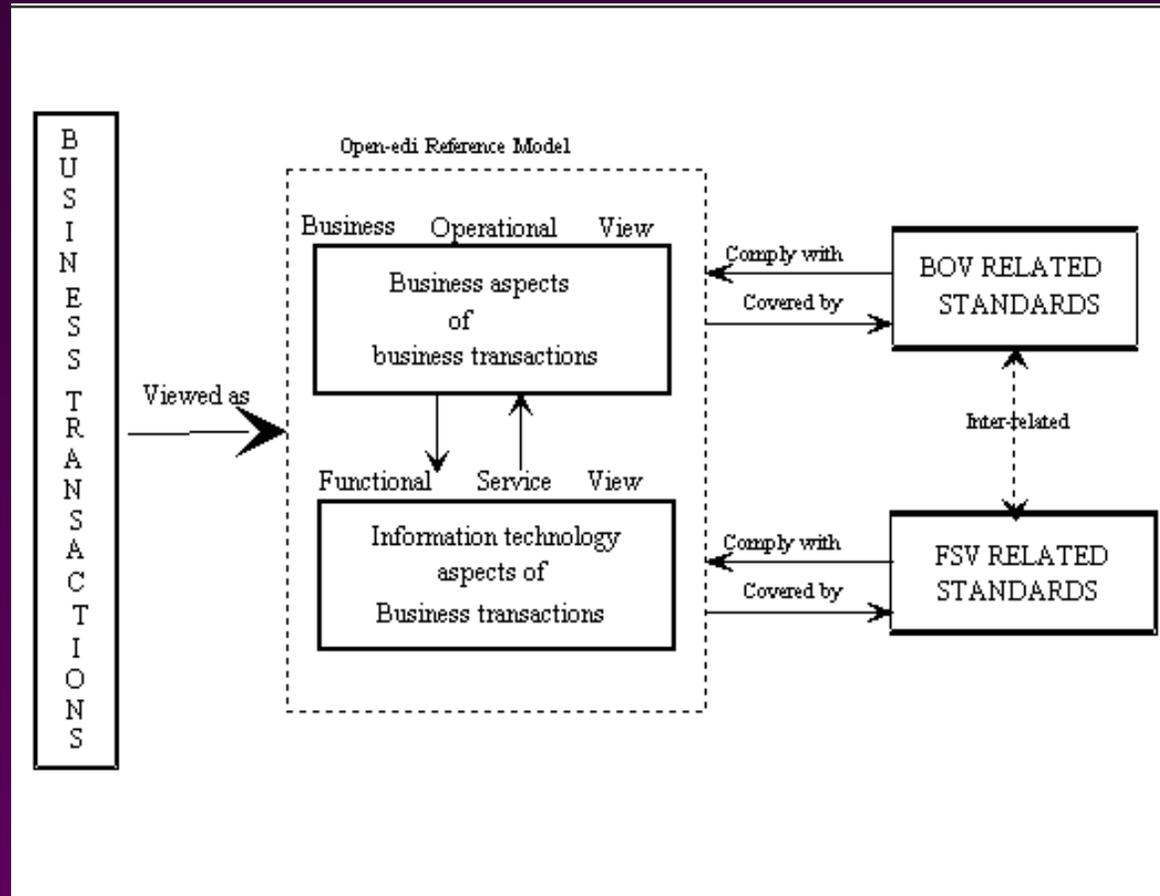


A descriptive model to help us move forward

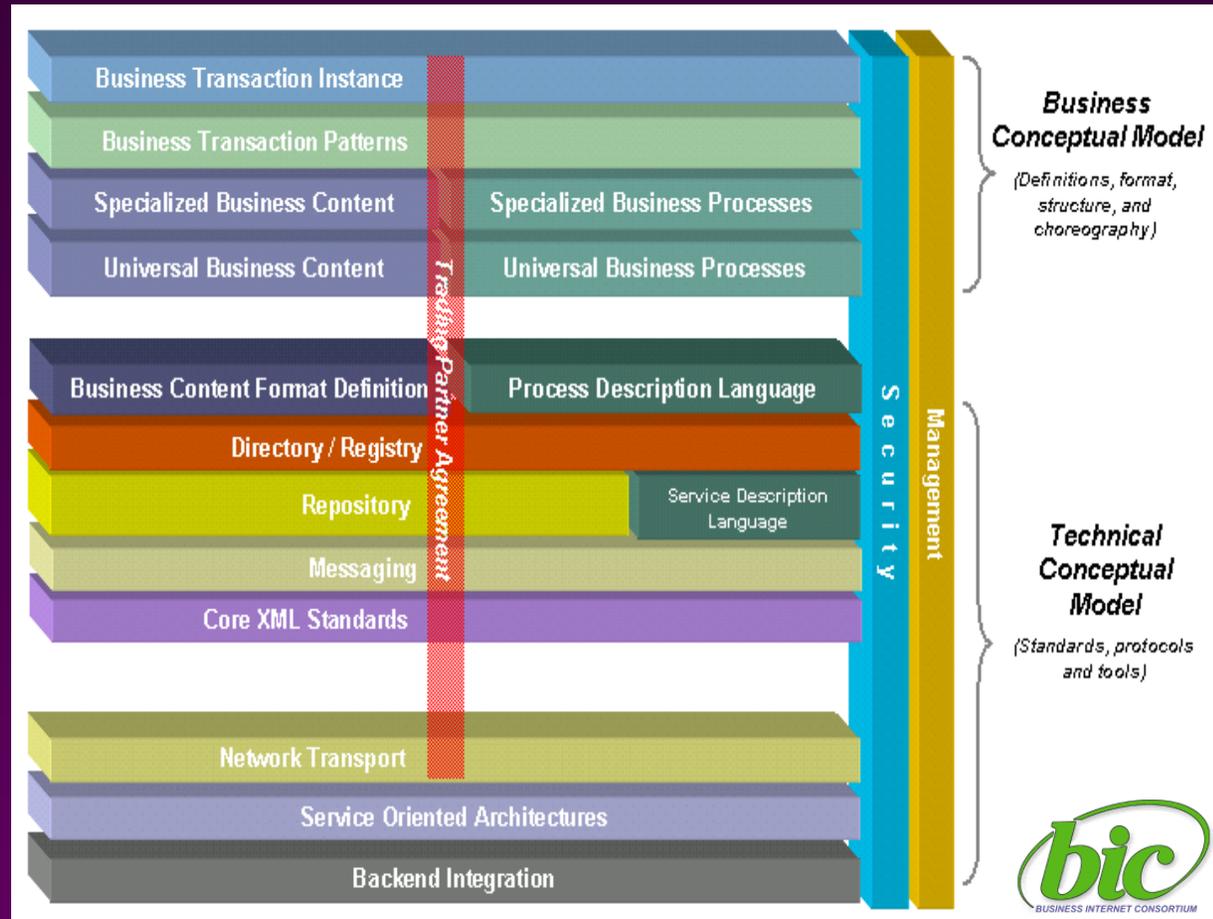
- **Categorize different domains covered by OASIS TCs**
 - Develop cohesive architecture vision
 - Generate synergy among TCs
 - Identify new areas to explore
- **Descriptive, not Prescriptive**



Previous work of conceptual model – ISO Open EDI Reference Model



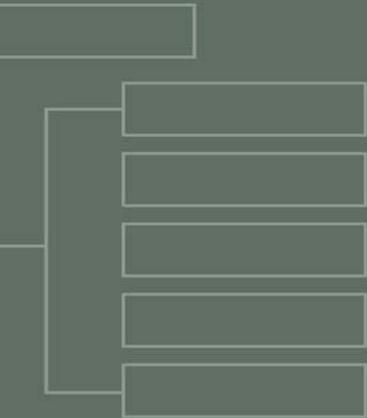
Previous work of conceptual model – BIC B2B Conceptual Model



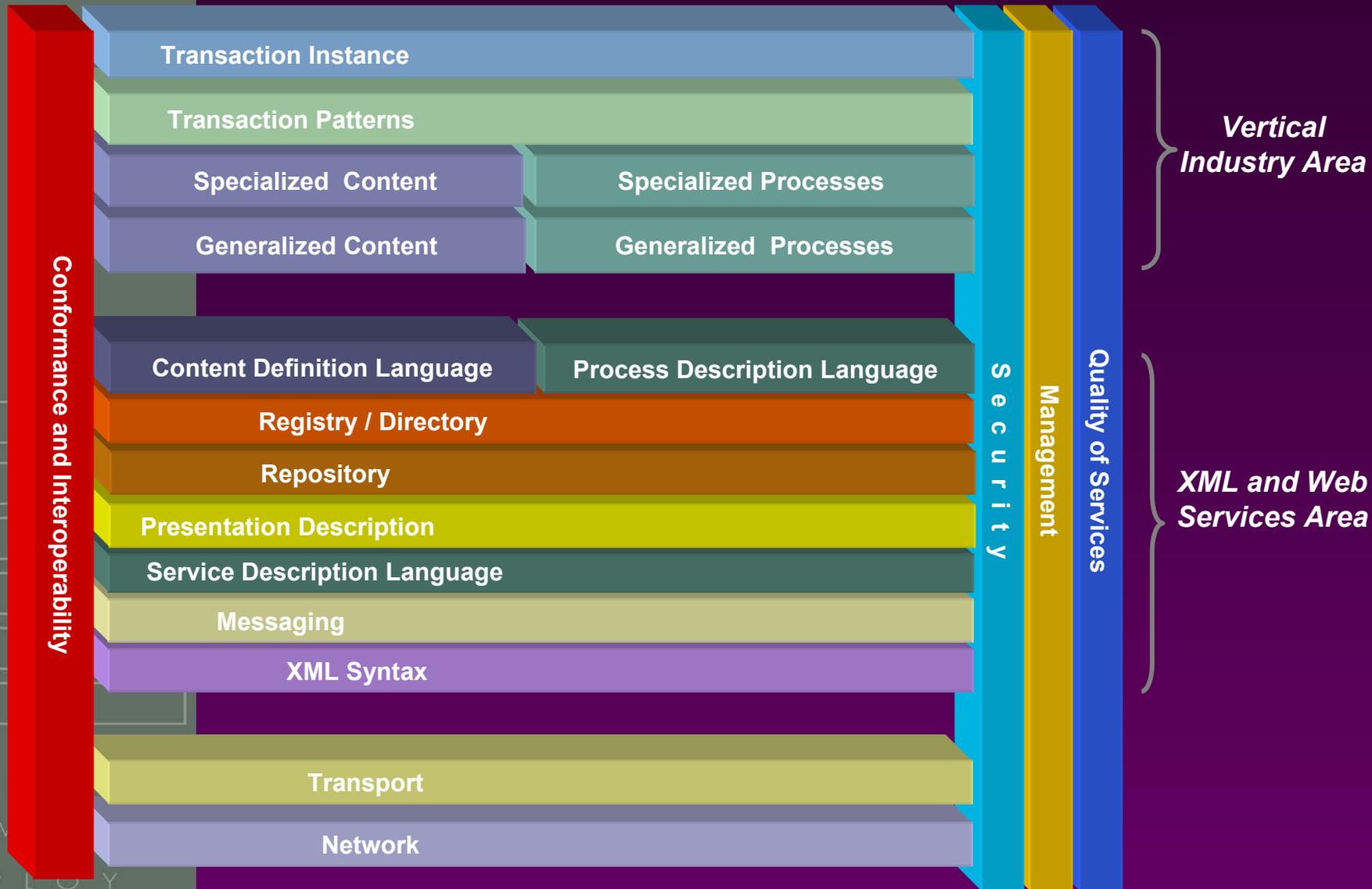
Source: Business Internet Consortium (BIC) Whitepaper, "High-Level Conceptual Model for B2B Integration", March 02, 2002

General Functional Areas

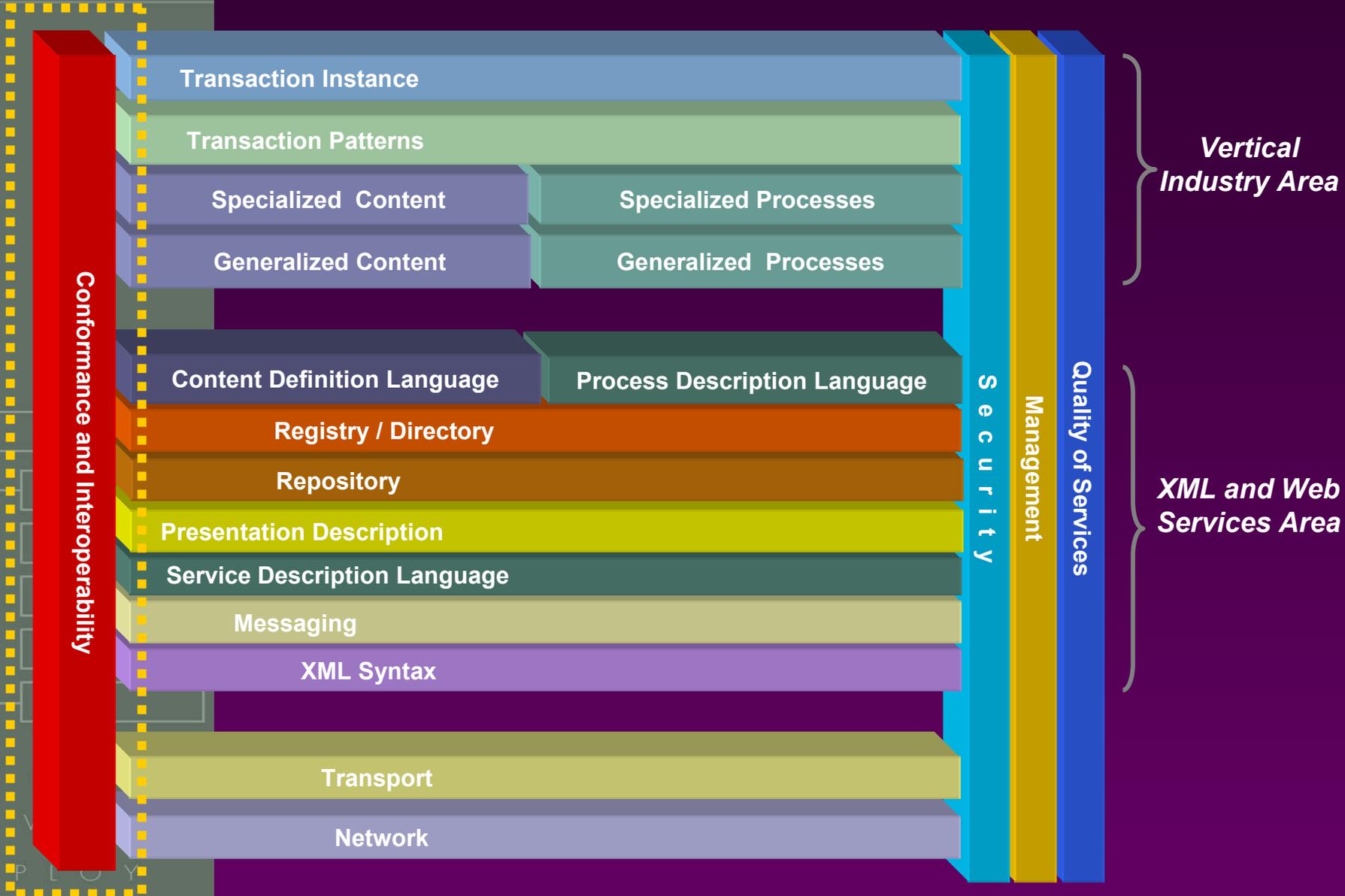
- **A three-layer model to categorize OASIS TCs**
 - Areas -> Topics -> TCs
- **Three major areas**
 - **Conformance and Interoperability Area**
 - **Vertical Area**
 - **XML and Web Services Area**
- **Plus: areas where OASIS does not participate**



Conceptual Model For OASIS

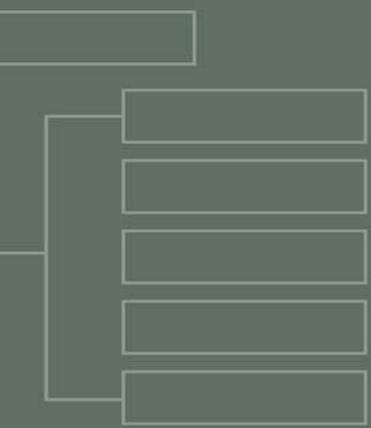


The Conformance Area



Definitions

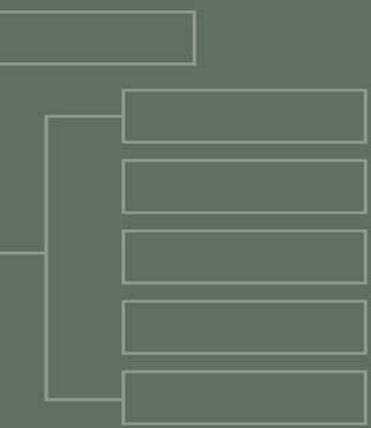
- **Conformance**
 - Ensuring through testing that an application or implementation of a specification conforms to that specification



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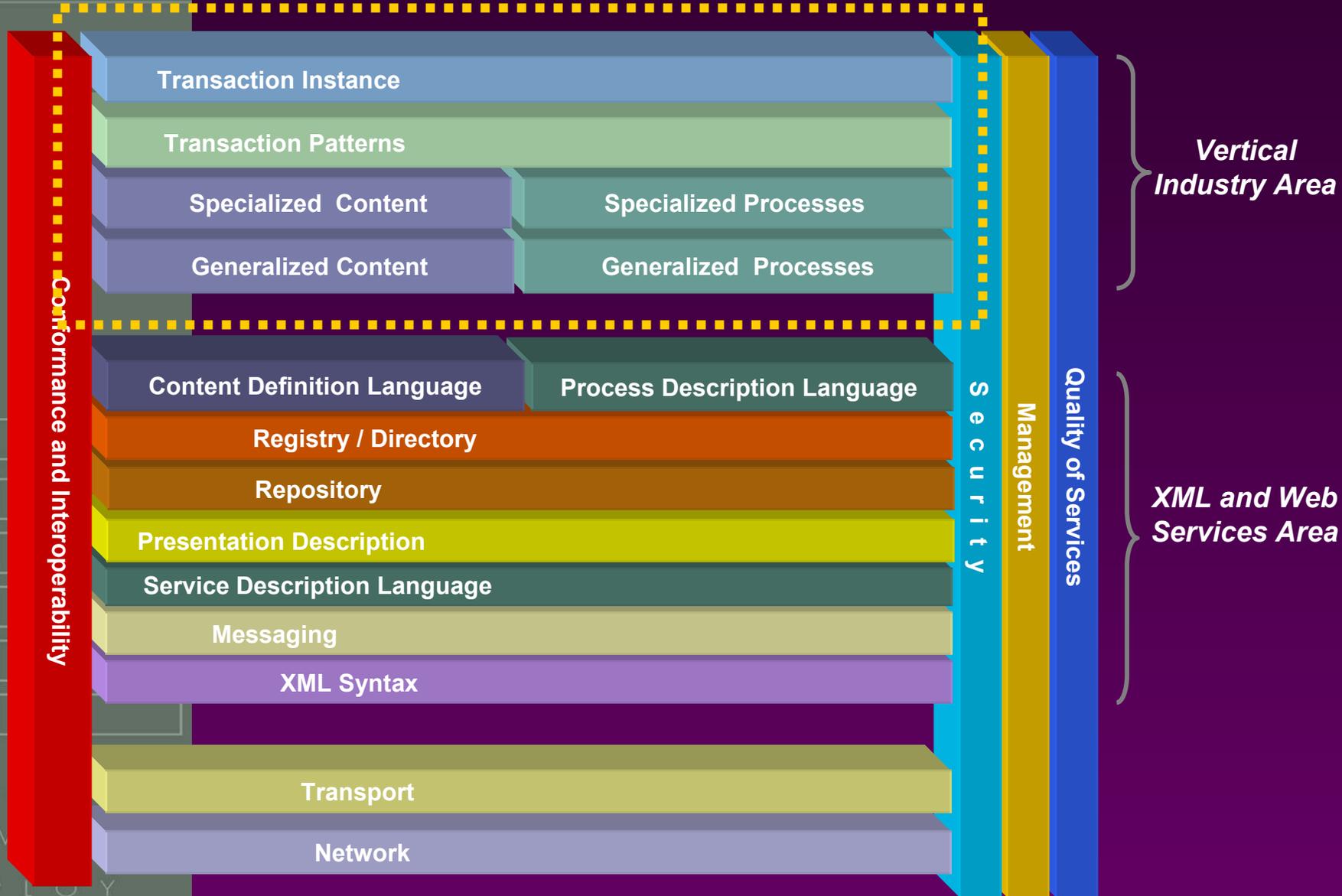
OASIS TCs: Conformance and Interoperability

- **Conformance**
- **ebXML Implementation, Interoperability, Conformance (IIC)**
- **XSLT Conformance**
- **XML Conformance (completed)**



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The Vertical Industries Area

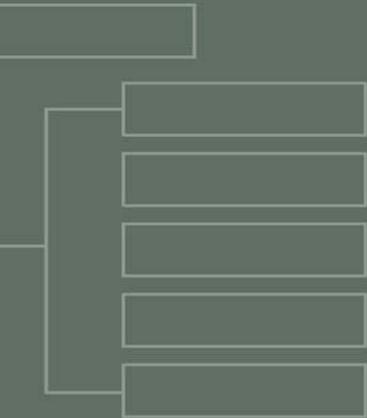


Definitions (cont.)

- **Business Content Format Definition**
 - Business Content includes everything that composes the payload of business transactions: which dictionary entries, composition of dictionary entries, special business documents, and attachments. The Business Content Format Definition is the specification of the data structures, data types, constraints and code lists of all the items necessary to compose valid business content.
- **Trading Partner Agreement**
 - Dynamic creation and management of trading partner agreements between partners. Profiles of trading partner's B2B infrastructure, protocols, contractual agreement for transactions. This layer also defines binding of business processes and business content to complete particular business transactions.

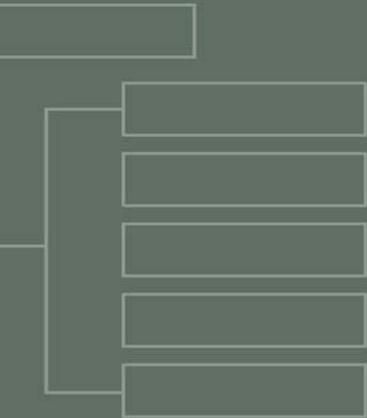
Definitions (cont.)

- **Universal Business Content**
 - Specifies business terminology and accepted values that may be universally used in business messages that support a broad range of industries, business models and locales; the vocabulary used to construct the business content of a message. This content covers many domains of discourse, such as product, materials management, finance, quality.
- **Specialized Business Content**
 - Industry- or supply chain-specific technical lexicon (terms, properties, values, taxonomic structures) to be used to extend and specialize the Universal content to construct the content of an industry-specific business document.



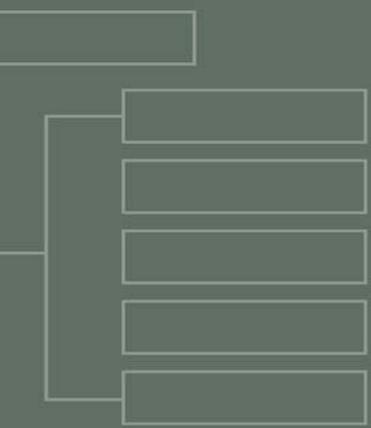
Definitions (cont.)

- **Universal Business Process**
 - Specifies business processes that are applicable to a broad range of businesses, regardless of the vertical industry or locale within which the business operates or of the specific characteristics of the business. These processes cover many domains of activity that businesses engage in, such as collaborative product development, request for quote, supply chain execution, purchasing, and manufacturing.
- **Specialized Business Process**
 - Specifies business processes that are not Universally applicable but instead are specific to a business operating within a specific industry or supply chain (such as Electronic Components, Pharmaceuticals, Automotive), and locales or business models.



Definitions (cont.)

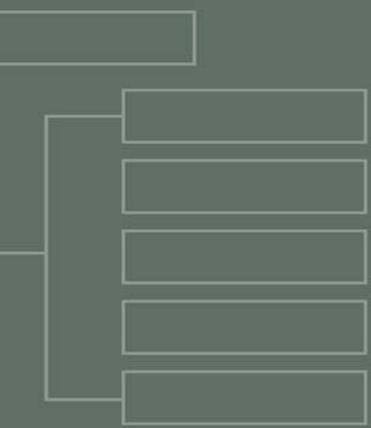
- **Note that the distinction between “universal” and “specialized” is relative and could change over time and situation. The purpose of this distinction to drive re-use and achieve manageability and economies of scales.**



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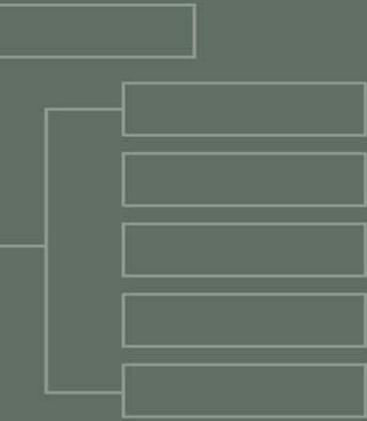
OASIS TCs: Vertical

- **Automotive Repair Information**
- **Controlled Trade**
- **Docbook**
- **Education XML**
- **e-Government**
- **Election and Voter Services**
- **Emergency**
- **Human Markup**
- **Tax XML**



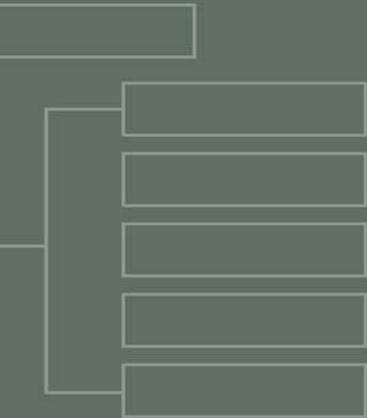
OASIS TCs: Vertical (cont.)

- **LegalXML**
 - **Court Filing**
 - **eContracts**
 - **eNotarization**
 - **Integrated Justice**
 - **Lawful Intercept**
 - **Legislative Information**
 - **Online Dispute Resolution (ODR)**
 - **Transcripts**

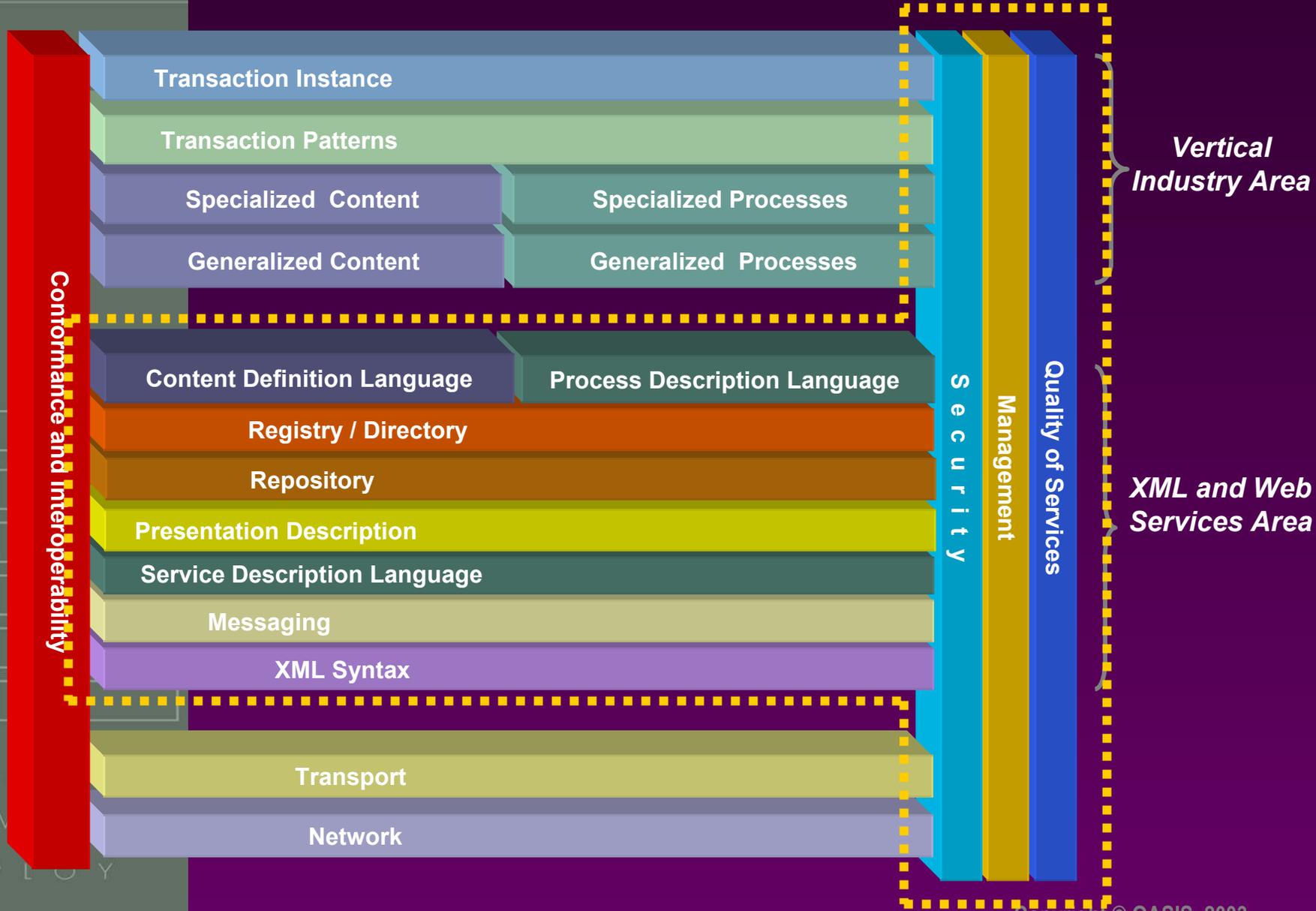


OASIS TCs: Vertical (cont.)

- **Generalized Content Definition**
 - Customer Information Quality (CIQ)
 - Open Office XML
- **Generalized Processes**
 - ebXML CPPA
 - Localization Interchange Format (XLIFF)
 - Provisioning Services (SPML)
 - Translation Web Services
 - Content Assembly Mechanism (CAM)

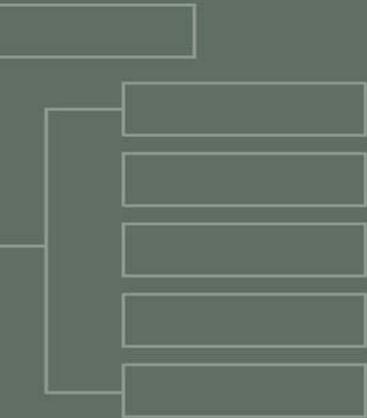


The XML and Web Services Area



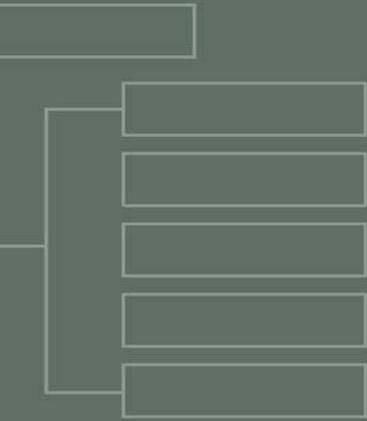
Definitions

- **Business Process Description Language**
 - Specifies the way in which any business process (whether Universal or specific in nature) is recorded, such that it is understood and executable in a repeatable fashion by a wide array of humans and/or applications.
- **Directory and Registry Service**
 - Specifies the structure and access protocol of registries and repositories that trading entities can access to discover each other's capabilities and services. Covers naming, directory, registry, privacy, authorization and identification services.



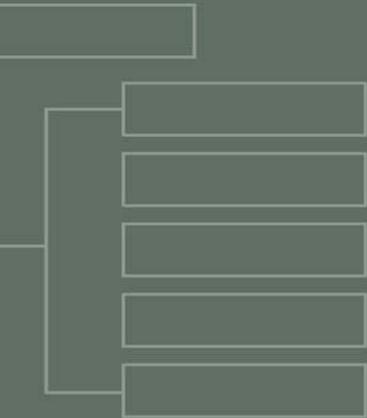
Definitions (cont.)

- **Repository**
 - Standardized dictionary and repository services that specifies the structure and access protocol and schemas for business content storage and retrieval, which includes the term, its constraints, its representations, etc.
- **Presentation Description Language**
 - Tools and protocols for user interfaces and interactions. It also provides specs for different formats needed for effective visual communication with end users to enhance end-user experience with applications.



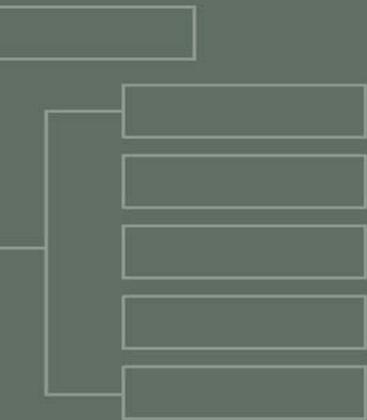
Definitions (cont.)

- **Service Description Language**
 - The tools and languages for service implementation and service interface, which is key to achieving loosely coupled architecture and reducing the amount of custom programming and the effort of integration between service requester and service provider.
- **Messaging**
 - Standardized message and envelope structure and layout definitions, which have specific technical purposes. This layer addresses the need to record session and communication settings for message transport in order to enable coordination between parties in a business transaction, including parameters that control Reliable Messaging, Secured Messaging, etc.



Definitions (cont.)

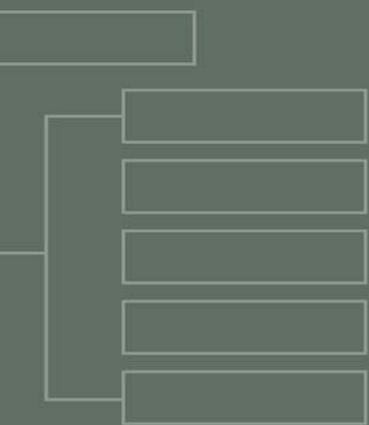
- **Security**
 - This layer spans a wide range of abstractions from basic encryption, authentication and authorization on the core XML layer to non-repudiation and security policies in the business process layer.
- **Management**
 - This layer specifies system management tools and standards that can be used to discover the existence, availability and health of a B2B solution. Furthermore, the management tools should also be able to control and configure the components.



Definitions (cont.)

- **Quality of Service**

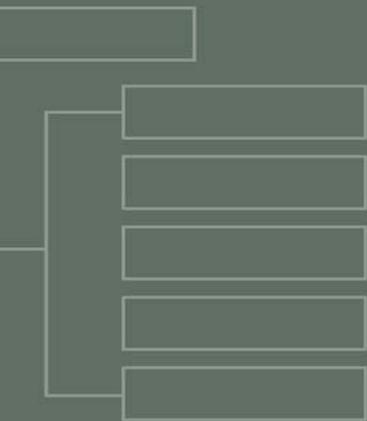
- This layer is closely related with the Management layer. It focus overall service-level management issues and related protocols at all level to enable policy management of service-levels and monitor the services provided by applications.



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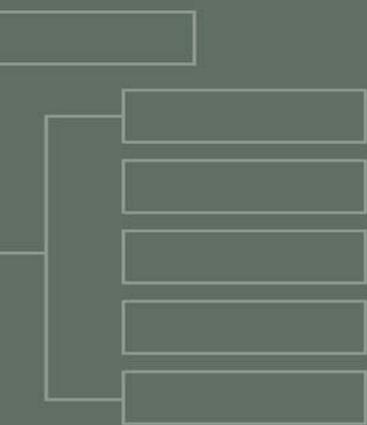
OASIS TCs: XML and Web Services

- **Registries, Repositories, and Directories**
 - Directory Services (DSML)
 - ebXML Registry
 - UDDI Specs
- **Messaging**
 - ebXML Messaging
 - Web Services Reliable Messaging (WSRM)
- **Content Definition Language**
 - Universal Business Language (UBL)



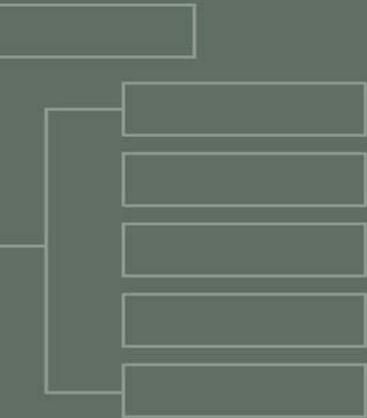
OASIS TCs: XML and Web Services (cont.)

- **XML Syntax**
 - Entity Resolution
 - RELAX NG
 - Topic Maps Published Subjects
 - Topic Maps PS Geography /Languages
 - Topic Maps PS XML Standards Vocabulary



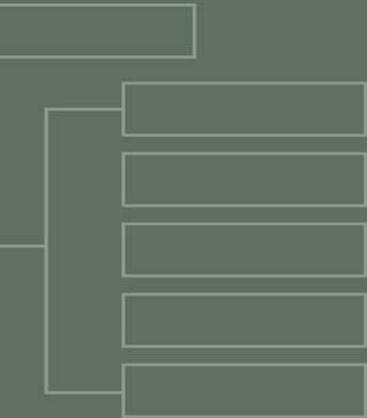
OASIS TCs: XML and Web Services (cont.)

- **Security**
 - **Access Control (XACML)**
 - **Common Biometric Format (XCBF)**
 - **Digital Signature Services (DSS)**
 - **Extensible Resource Identifier (XRI)**
 - **Public Key Infrastructure (PKI)**
 - **Rights Language (RLTC)**
 - **Security Services (SAML)**
 - **Web Services Security (WSS)**

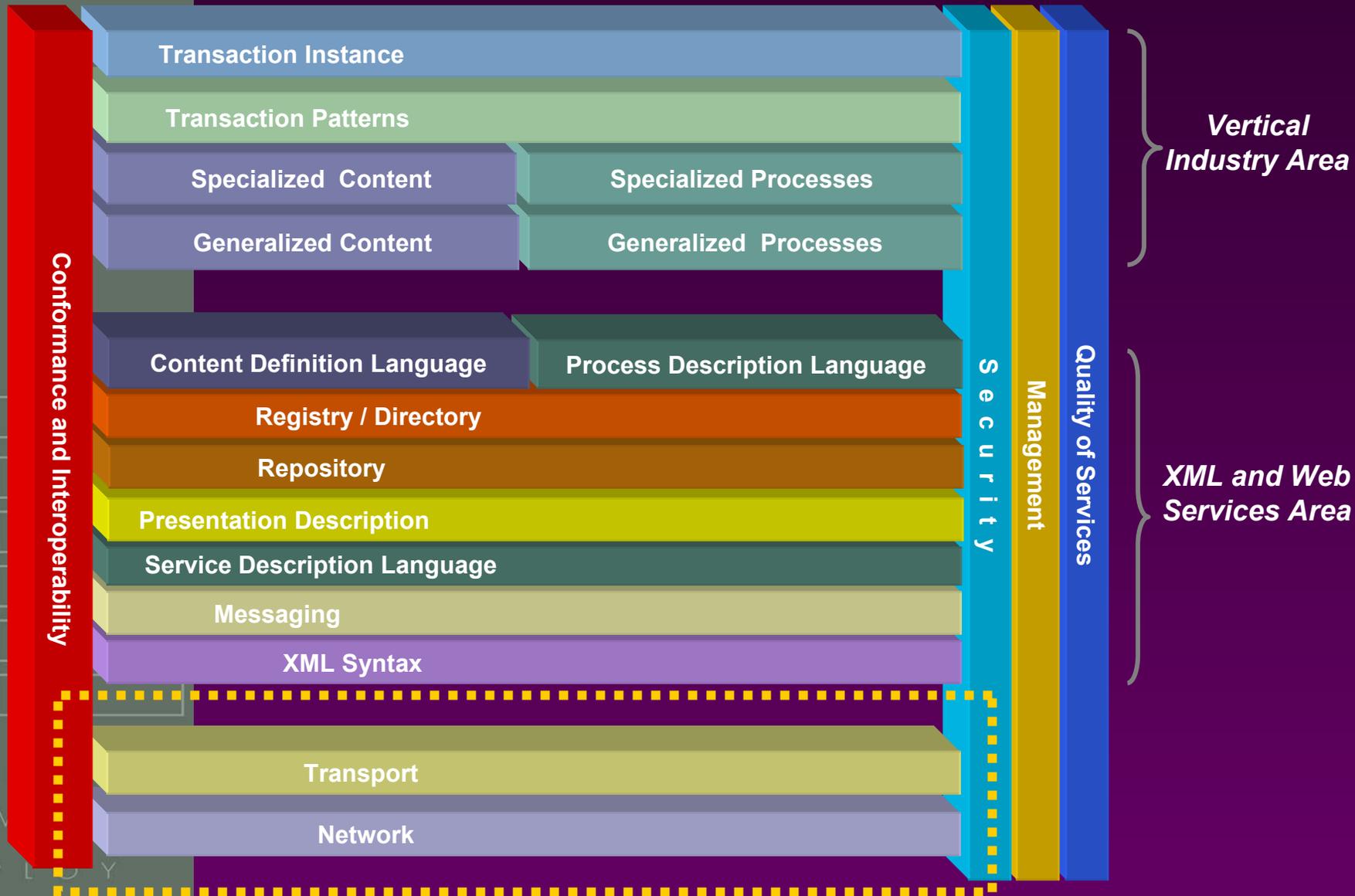


OASIS TCs: XML and Web Services (cont.)

- **Process Description Language**
 - **Business Transaction Protocol (BTP)**
- **Presentation Description**
 - **User Interface (UIML)**
 - **Web Services for Interactive Applications (WSIA)**
 - **Web Services Remote Portal (WSRP)**
- **Management**
 - **Management Protocol**
 - **Web Services Distributed Management (WSDM)**

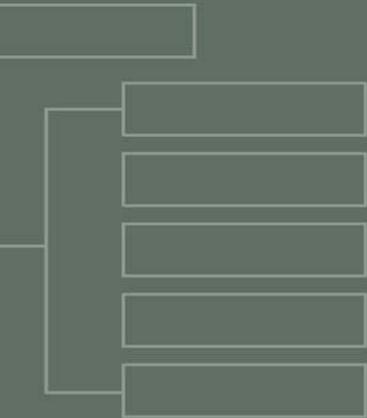


The non-OASIS Area



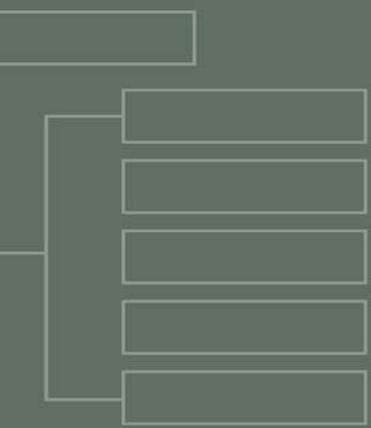
Definitions

- **Network Transport**
 - The basic messaging transport protocols needed to communicate on the Internet, messaging services that provide for asynchronous publish/subscribe, asynchronous message queuing, and synchronous request/reply, and how messages are placed on the transport bus and taken off the bus. These standards specify mechanisms for transporting messages in a secure and reliable way
- **Core XML Standards**
 - XML 1.0 is the W3C Recommendation for document syntax. There are associated W3C specifications for defining document types and for accessing the data within the documents. This syntax is used to express specifications in all higher layers in the Conceptual Model.



For more information...

- www.oasis-open.org
- xml.coverpages.org
- www.xml.org



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