

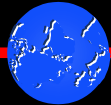


Advanced Integration Architecture

**Christoph Bussler
Oracle Corporation
Redwood Shores, CA, USA**

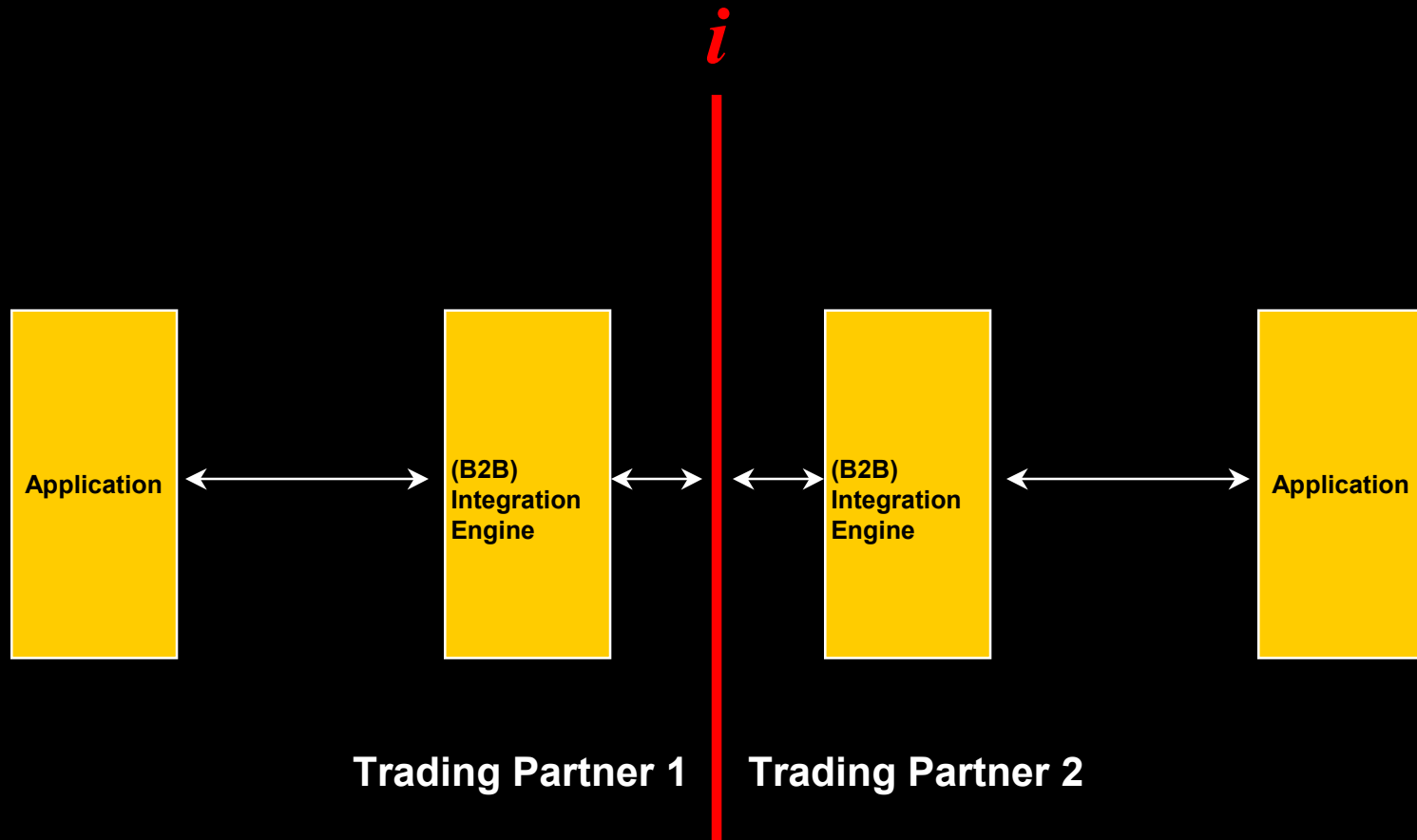
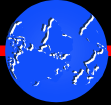
E-Business Application Integration Workshop, Orlando, FL, January 2001

Agenda

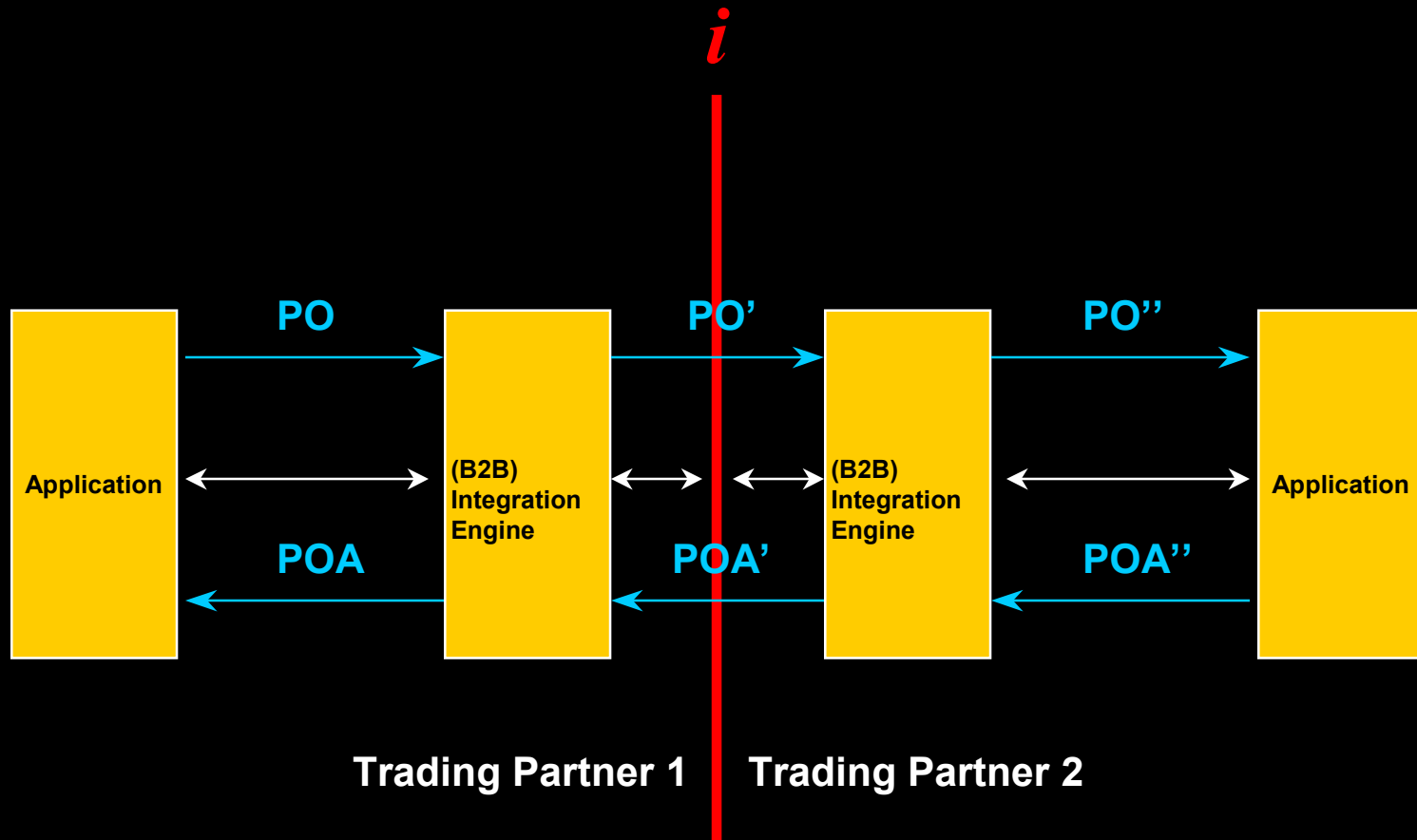
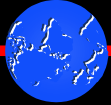


- **Business-to-Business (B2B) Integration**
- **Why is B2B Integration Hard?**
- **B2B Integration Requires A2A Integration**
- **Seamless A2A and B2B Integration**
- **Integration Concepts**
- **Integration Technologies**
- **Advanced Integration Architecture**

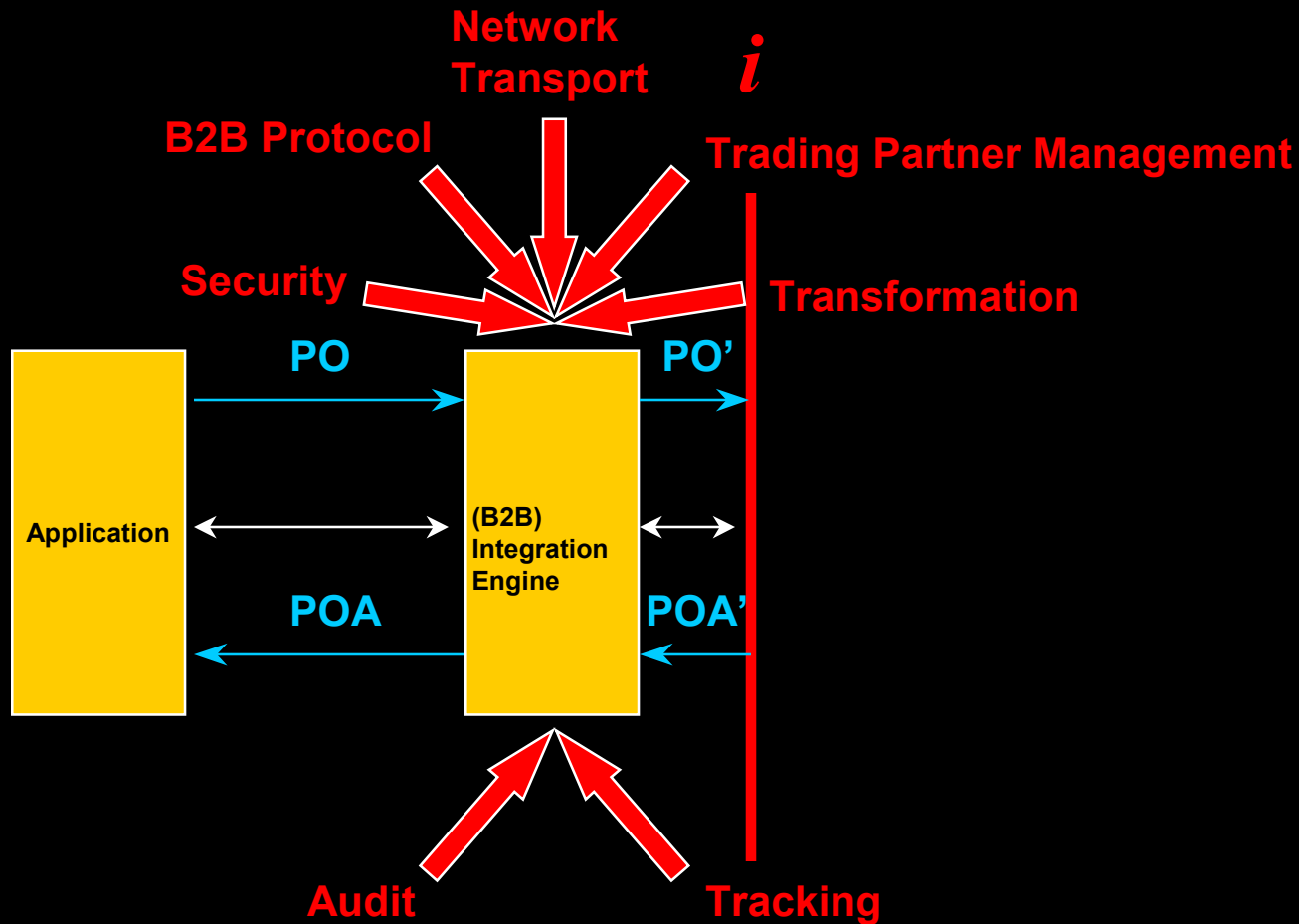
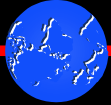
Business-to-Business (B2B) Integration



Business-to-Business (B2B) Integration



Business-to-Business (B2B) Integration



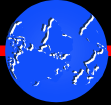
Why is B2B Integration Hard?



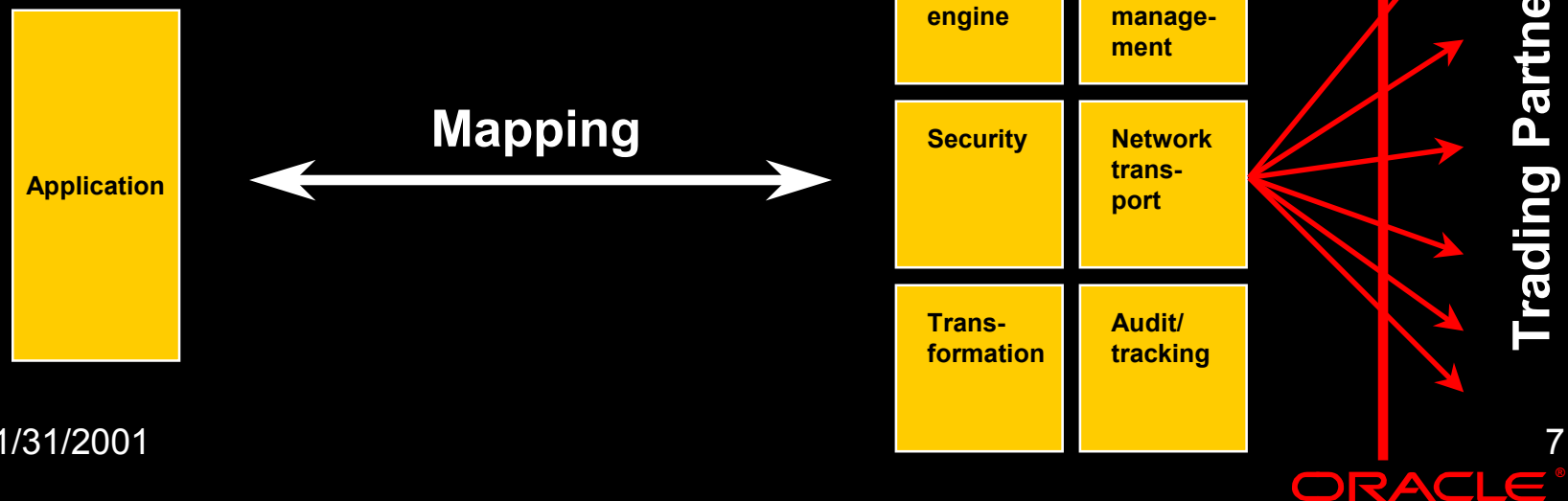
■ Semantic and technical heterogeneity

- B2B protocol
 - EDI, Swift, RosettaNet, OASIS, fPML
- Network transport
 - SOAP, ebxml, beep, HTTP/S, S/MIME, ftp, EDIINT
- Audit and tracking
 - All communication: within and outside company
- Security
 - Certificates, non-repudiation, authorization, authentication
 - X.509, xkml, s2ml
- Trading partner management and agreement
 - For every pair of active trading partners
- Transformation
 - Syntactic and semantic transformation

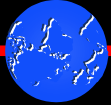
B2B Integration Requires A2A Integration



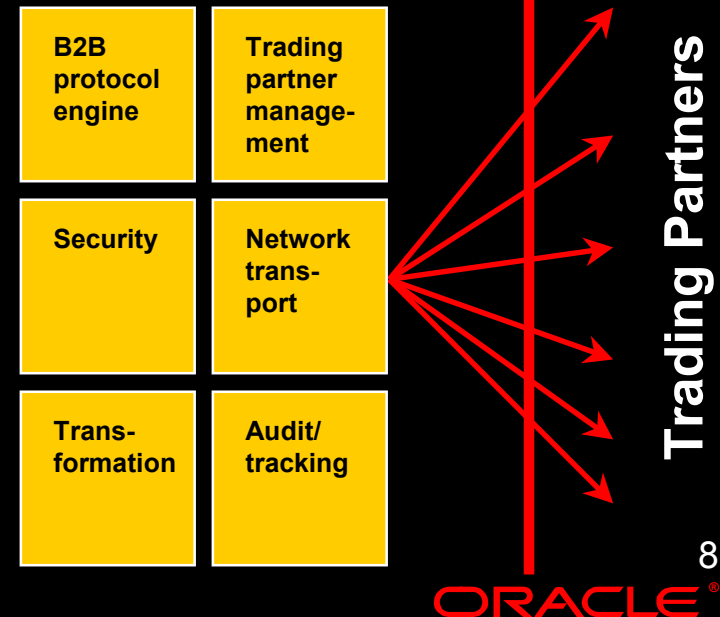
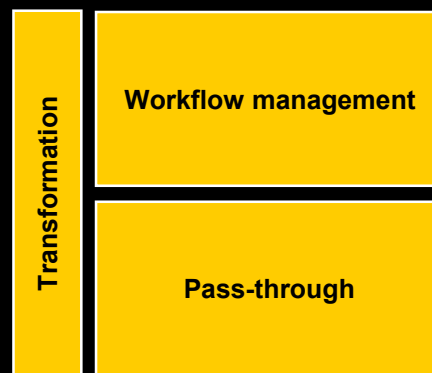
- “Gigantic” mapping problem
 - From incoming messages to sequence of application invocations and vice versa



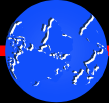
B2B Integration Requires A2A Integration



- Business process / workflow management
 - Business rules
 - Pass-through
- Hundreds of applications and application interfaces
 - Application adaptation (Screen, queue, application *i* programming interface, file system, database)
- Transformation

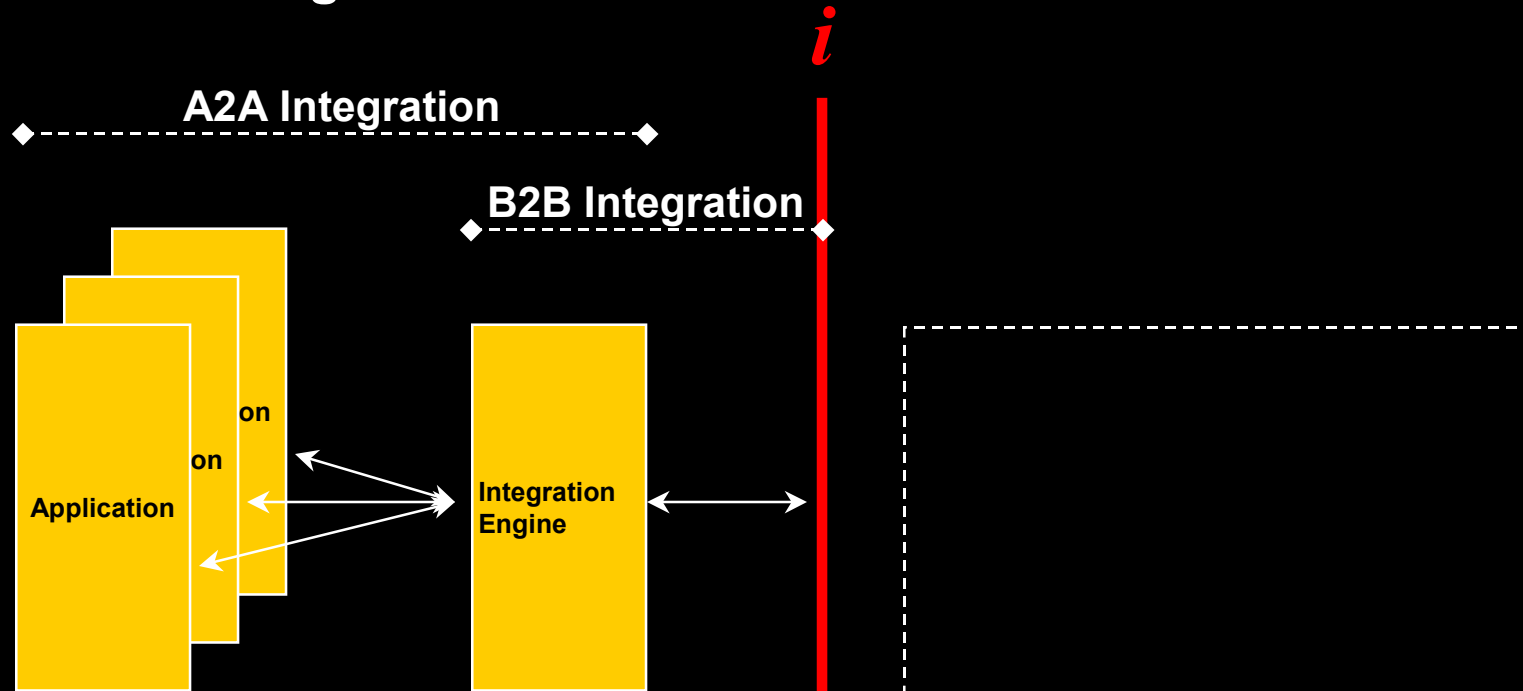


Seamless A2A and B2B Integration

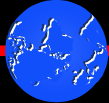


■ Seamless A2A and B2B integration

- One set of integration concepts
- One integration architecture

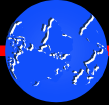


Integration Concepts



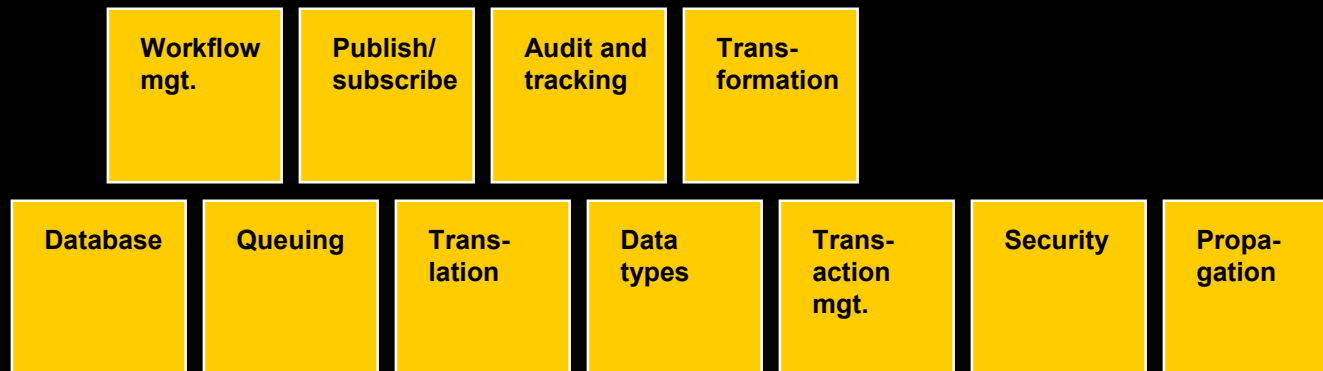
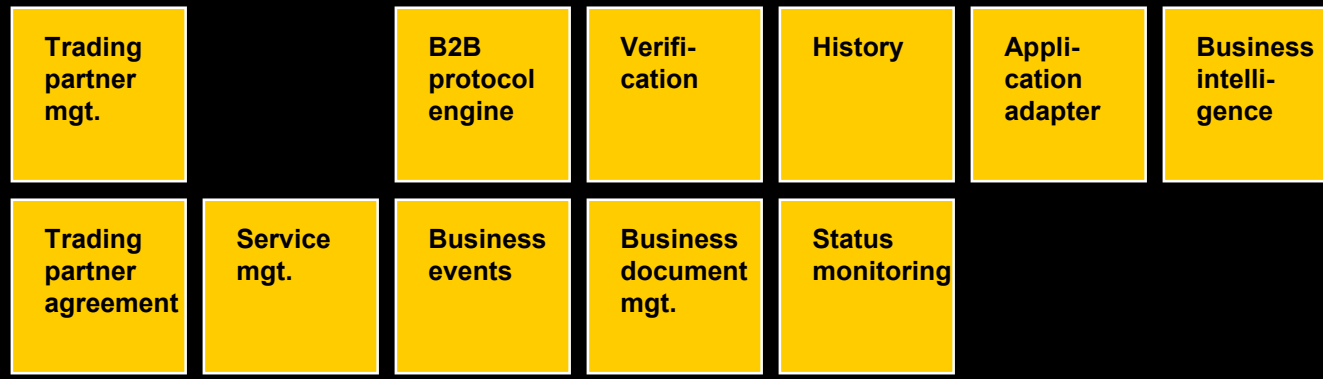
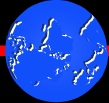
- **B2B protocol**
 - Internet and networks as interface
- **Application adaptation**
 - Application as interface
- **Business document type**
 - Business concept like purchase order
- **Business event type**
 - Active elements with intent of action
 - “create purchase order”
- **Information sharing**
 - Publish/subscribe to interesting information
- **Trading partner**
 - “My” community
- **Trading partner agreement**
 - Rules of engagement
- **Translation**
 - Syntax
- **Transformation**
 - Semantics
- **Business process**
 - Routing and business rules
- **Verification**
 - Consistent and valid business events
- **Audit and Tracking**
 - Status and non-repudiation

Integration Technologies

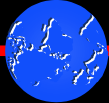


- **Queueing**
- **Propagation**
- **Application adapter**
- **Service management**
- **Database**
- **Transaction management**
- **Workflow management**
- **Security**
- **History management**
- **Business intelligence**
- **Transformation / Translation**
- **Repository**

Advanced Integration Architecture

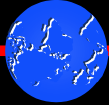


Summary



- **B2B Integration and A2A Integration are “the same”**
 - Concepts
 - Technologies
- **The integrated platform has many advantages**
 - One integrated platform for all integration work
 - Already integrated integration technologies
 - Service levels apply without limitation: transactions, reliability, recovery, scalability, security
- **Advanced Integration Architecture**
 - Supports A2A as well as B2B integration seamlessly and completely

Contact



- **Chris.Bussler@Oracle.com**