



AdsML @ Tribune Publishing

Integration and e-Commerce

What is the problem?

■ Problem: Agility

- Large number of new integrations in development.
 - New booking system with new interfaces and workflows.
 - Outsourcing of ad production.
- Limits of existing internal and external integrations
 - Point to point solutions.
 - Custom nomenclature - no reuse.
- Significant differences in internal application structures (taxonomy and nomenclature).

✓ Solution: SOA

What is “SOA”?

- Service Oriented Architecture = Development Paradigm with the following features:
 - ✓ Separate business logic from application logic and data.
 - ✓ Descriptive and not Instructive
 - ✓ Six attributes of good design.
- Service Oriented Architecture is not a web services API.

SOA Is The Greatest Thing Since Sliced Bread?

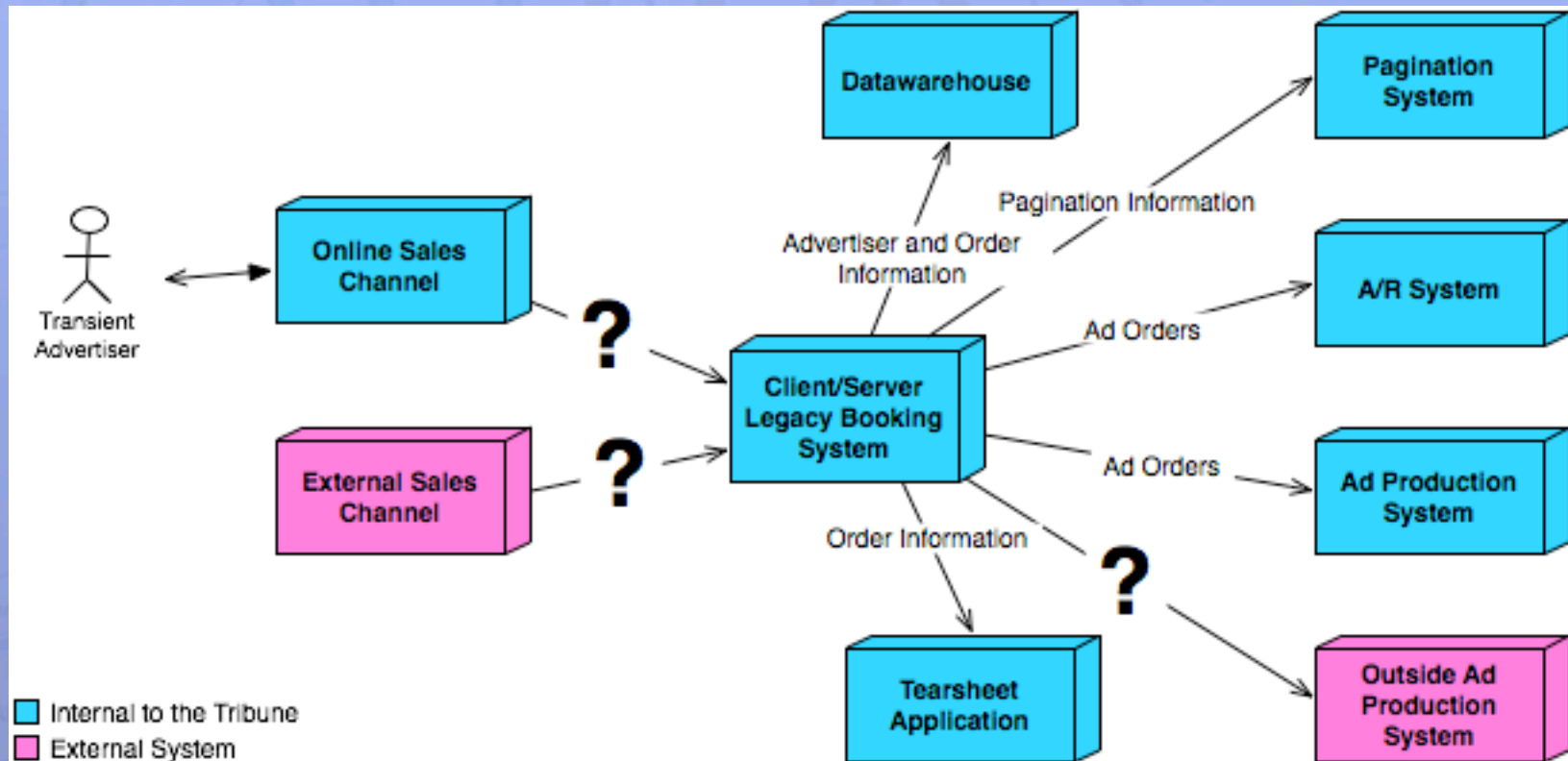
Your toaster as a service...

- ✓ **Standards-compliant:** A toaster has a standard “interface” for sliced bread.
- ✓ **Reusable:** A toaster can be used with any standard sliced bread.
- ✓ **Loosely coupled:** A toaster need not know anything in advance about the bread
- ✓ **Composable:** A toaster can be used in both breakfast and lunch workflows.
- ✓ **Autonomous:** A toaster can perform its step without additional input.
- ✓ **Discoverable:** If you need a toaster you can use a directory to locate and purchase a toaster.

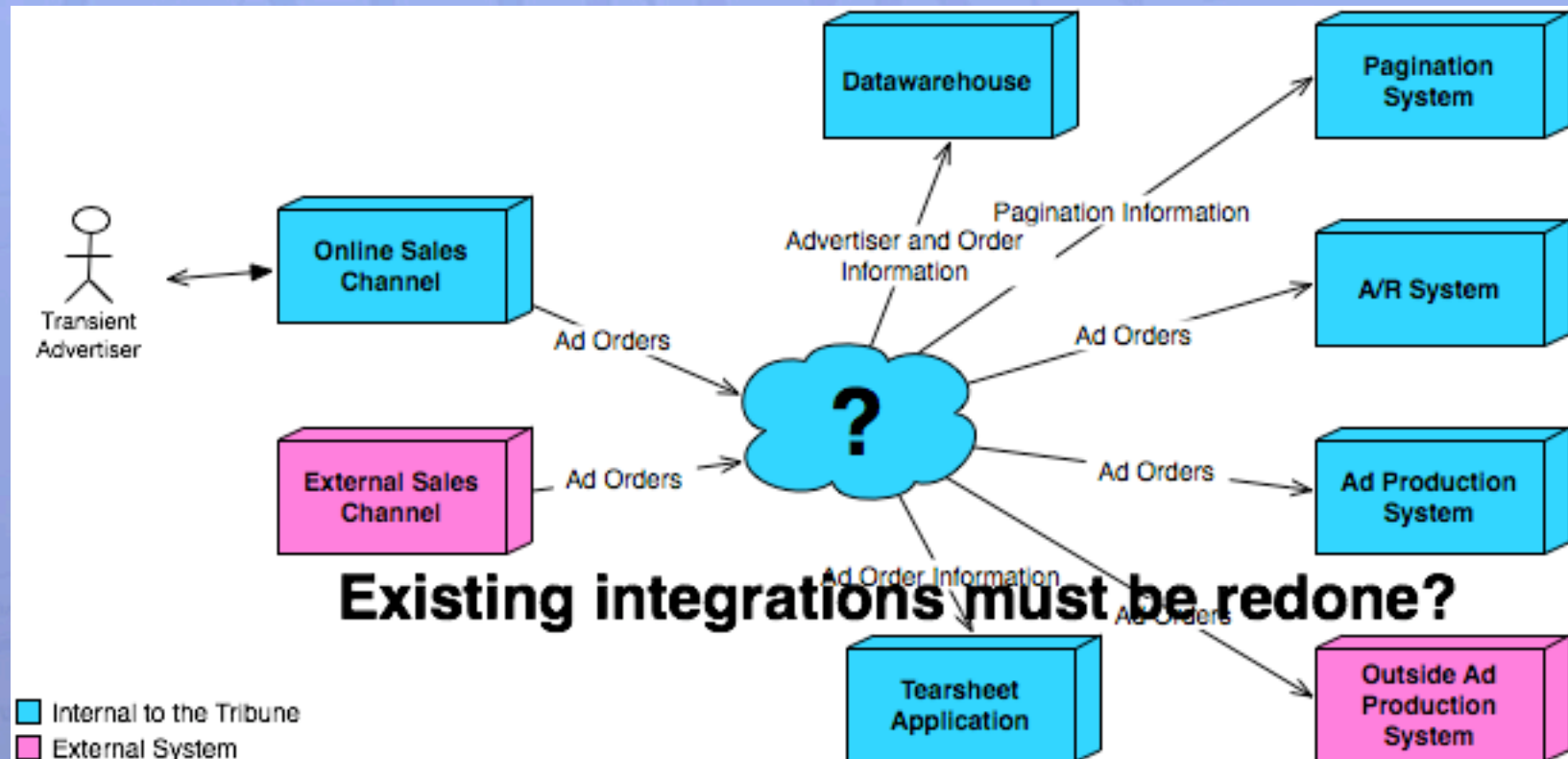
Why do we use AdsML?

- Reduce costs, complexity, and learning curve of integrations.
- Reuse integrations and data in new workflows and business models.
- Standardization with vendor independence and ability to consolidate systems.
- Potential vendor and trading partner support.

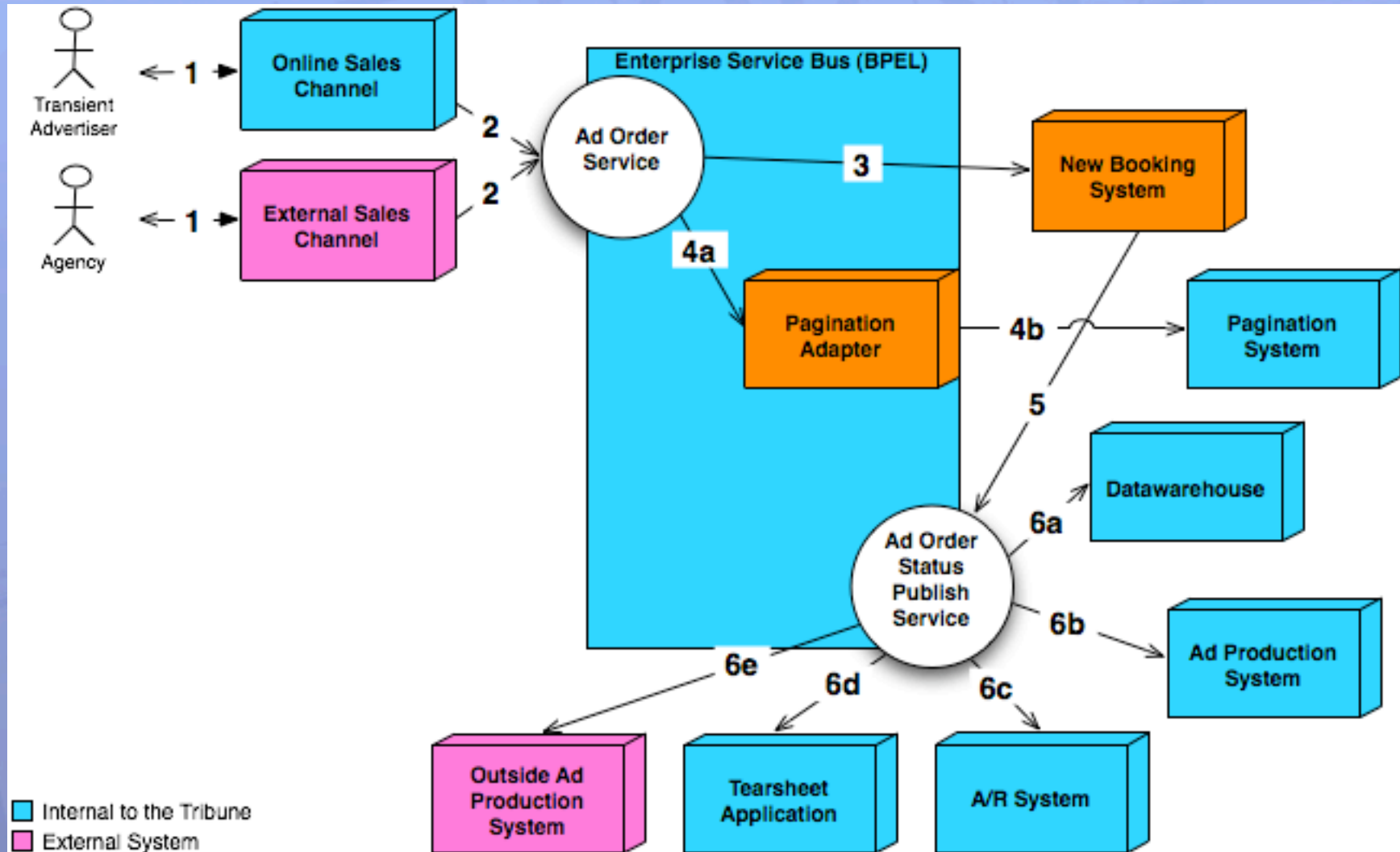
Point to Point: New Integrations?



Point to Point: Replace Application?



Replace or Add with SOA



What we are are doing with AdsML?

- Developing across all nine business units of Tribune Publishing.
- Used to standardize integrations:
 - Used in all new internal and external integrations.
 - ✓ Vendor to Vendor
 - ✓ System to System
 - If vendor, system, or business units change...
 - ✓ Integration is the same
 - ✓ Workflow can be expanded and altered
- Establishing a standard trading partner specification: <http://adsml.tribune.com>

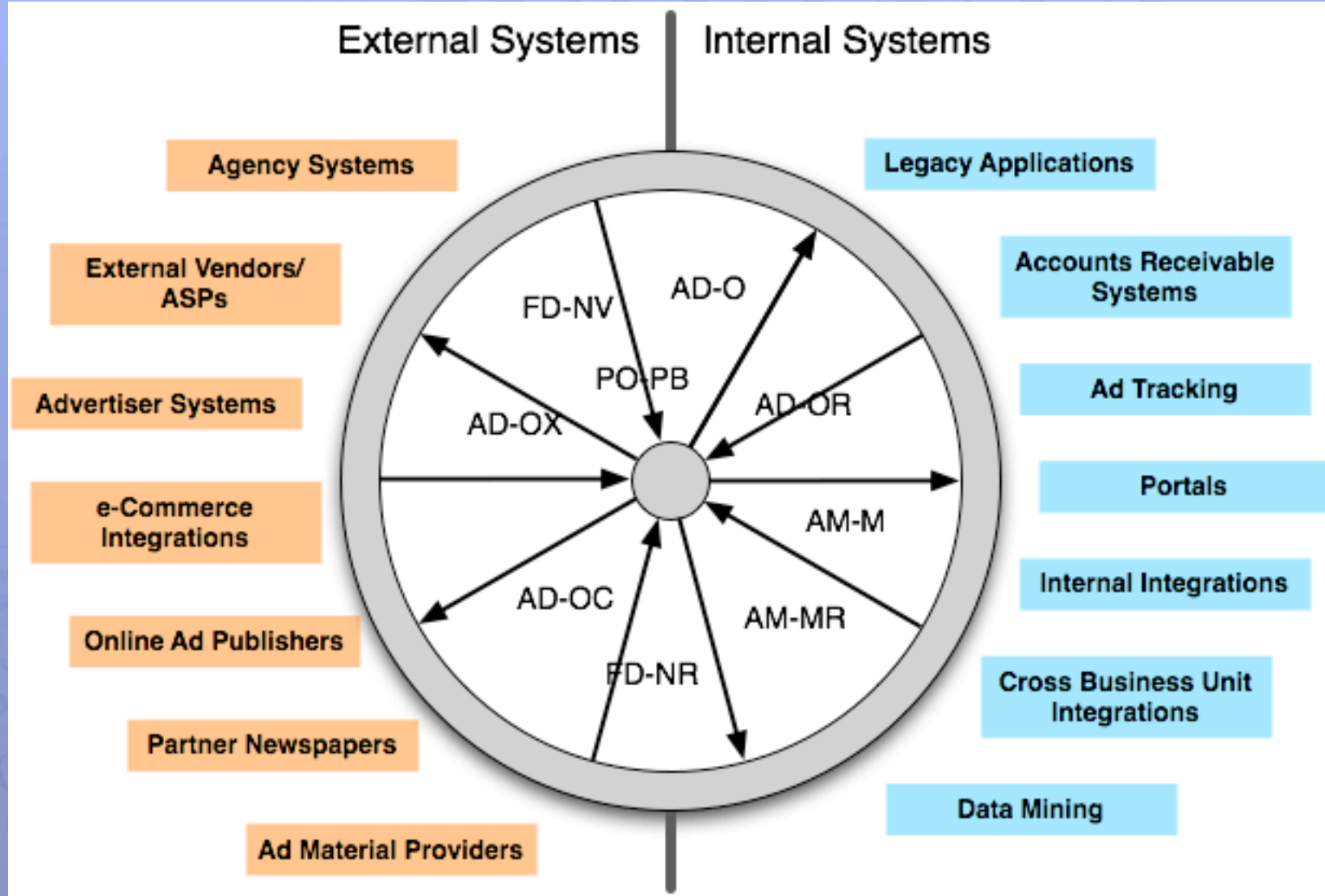
What we are are doing with AdsML?

- Key component of Services
 - Services named after AdsML messages and specifications
 - Services use AdsML schemas
- Data is stored and converted using AdsML structures:
 - Re-use in AdsML workflows
 - Platform and vendor agnostic

What we are are doing with AdsML?

- Used to standardize data:
 - Offer advertisers and partners consistency over enterprise
 - Nomenclature
 - Hierarchy
 - Standardization has led to simplification in enterprise.
- Used for validation and verification:
 - Validation and verification (AdsML Validation Service) prior to further processing

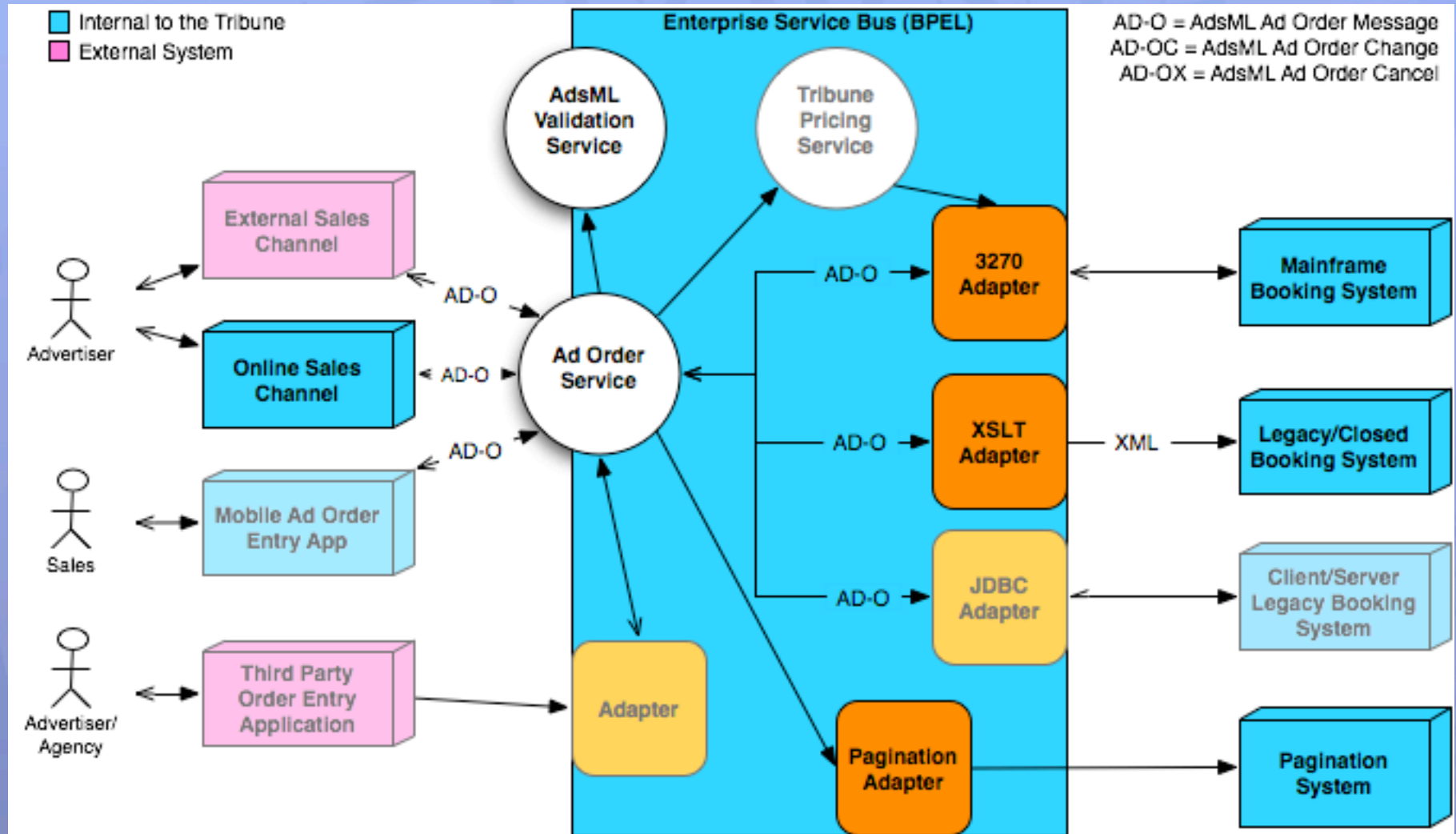
Hub and Spoke



AdsML for Ad Ordering

- At and across all 9 business units through one standard interface.
 - Each business unit has a unique order entry system
- Open rate or pre-priced advertisements
- With or without ad material at time of order
- Multiple ad types:
 - display ads
 - liners ads
 - interactive ads.
- Two way communication with request and response (AD-OR).

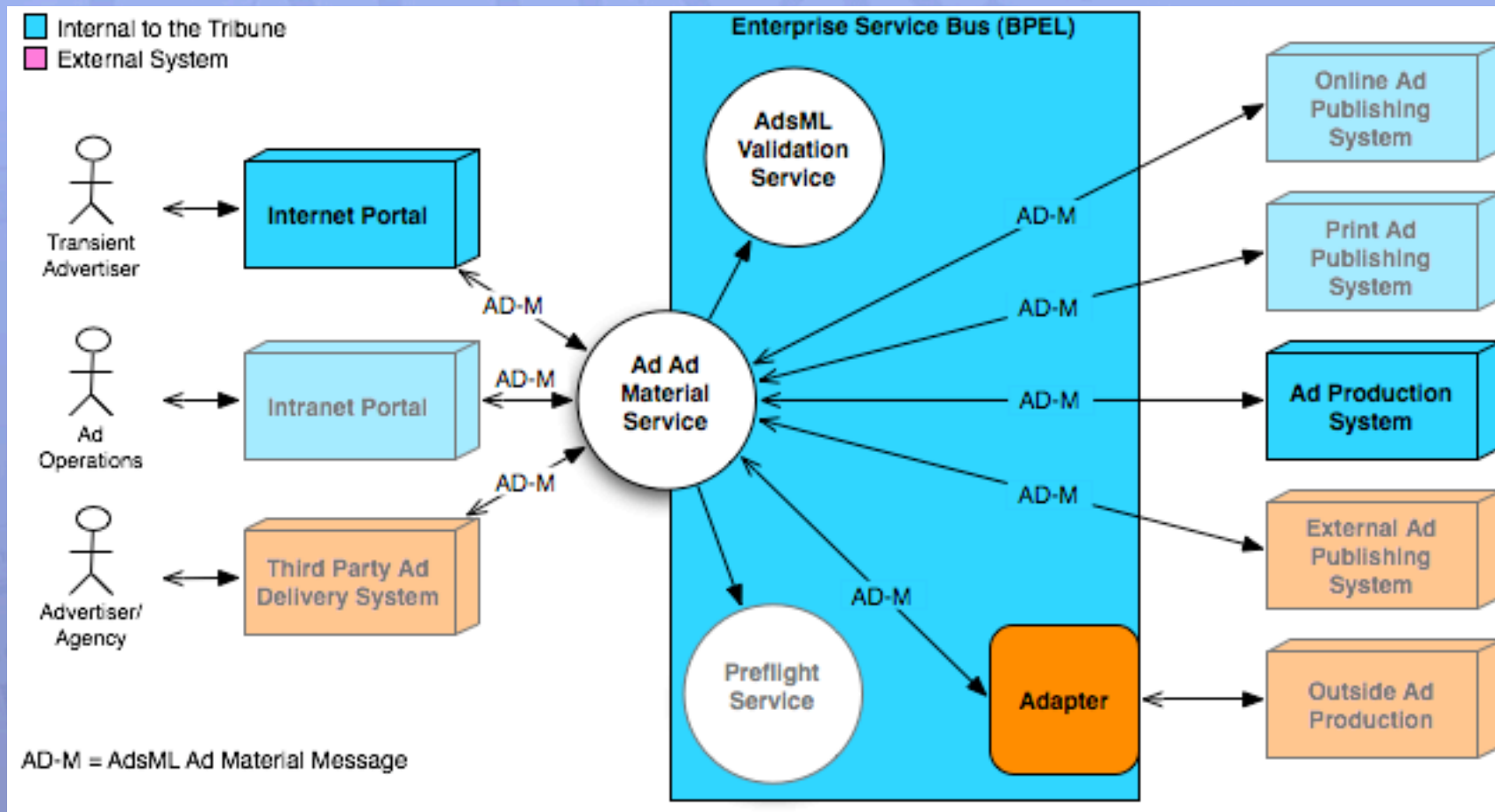
Many to Many Ad Ordering



AdsML for Ad Material

- Delivery and Distribution for all nine business units with portal
 - Business units have unique ad material handling workflows and systems.
- Classified Liners and Display Ads
- Two way communication with request and response (AM-MR).

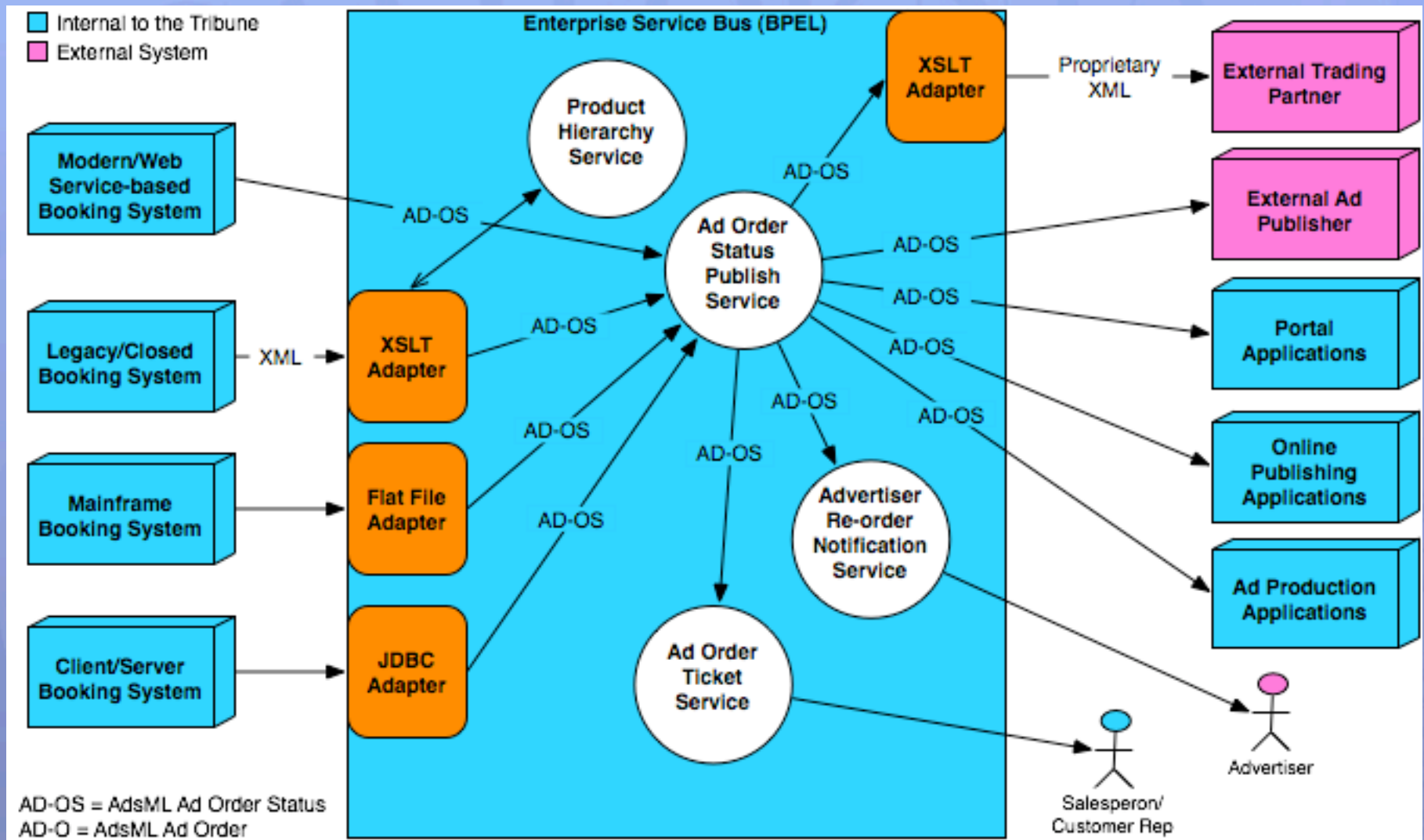
Many to Many Material Distribution



AdsML for Order Distribution

- Confirmed orders distributed to “listening” systems:
 - Portal applications for aggregate view of previous orders
 - Tickets for Ad Operations and Ad Production
 - Order distribution to online systems
 - Order distribution to “up-sell” ASPs

Distribute Existing Orders



Where are we going next?

- ✓ New workflow steps:
 - ✓ Ad order pricing and request for quotation.
 - ✓ Invoicing and billing
 - ✓ Electronic tearsheets
- ✓ Direct integration with ad material suppliers.
- ✓ Direct e-Commerce with Agencies
- ✓ Direct e-Commerce with Advertisers
- ✓ Real-time feed to data warehouse of all transactions for analytics across entire enterprise.

Risks

- Flexibility in the standard.
- Lack of support for XML Schema features in software platforms.
- Full implementation requires “gateway”.
 - ID coordination, send counts, etc

How to do you start with AdsML?

- ✓ Pick an integration or workflow with executive support
- ✓ Get management commitment.
- ✓ Get familiar with XML and AdsML
- ✓ Use what you need: Start with mappings...
...but don't map everything!
- ✓ Use it and have courage to fix mistakes.
- ✓ Don't "eat the elephant".

What are the keys to success?

- ✓ Think business, not technology.
- ✓ Stick to the specification.
 - Enables reuse, without rework.
 - Reduces coordination issues.
- ✓ Cautiously evaluate trading partners capabilities.
 - Review technology platform.
 - Verify knowledge of key technologies (XML, etc)
- ✓ Hire experience/mentors...
- ✓ ...but develop in-house expertise.
- ✓ Have long term vision.
- ✓ Join AdsML Consortium.