

Comparing
ebXML messaging (ebMS)
AS2 for EDI,
EDI VAN
and
Web Service
messaging



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members

Summary

- ebXML designed for B2B applications
- AS2 / AS1 – is “EDI over the internet”
- EDI VAN – legacy services for past 20 years – ftp delivery, now internet too
- Web service messaging – adaptation of WSDL-based XSD for B2B applications
- Web service WS-I – interoperability profile

B2B Comparison Matrix

Feature	ebMS	AS1/ AS2	EDI VAN	WSDL	WS-I
Open public specification	Yes	Yes	Messaging	Yes	Yes
EDI payloads support	Yes	Yes	Yes	No	No
XML payload support	Yes	Yes	Yes	Yes	Yes
PDF and binary attachments support	Yes	Yes	Yes	Yes	Yes
Secure messaging with authentication	Yes	Yes	Partial	Yes	Yes
Reliable message delivery mechanism	Yes	Pending	Partial	No	Yes
Legal receipt verification support	Yes	No	Partial	No	No
Built-in audit log and tracking	Yes	Yes (for NRR)	Yes	No	Yes
Business process workflow enabled	Yes	No	No	No	Partial
Role and action use support in envelope	Yes	No	No	No	No
Conformance suite for implementations	Yes	Yes	No	No	Yes
Digital certificates and encryption	Yes	Yes	Yes	Yes	Yes
XML encryption support	Yes	No	No	Yes	Yes
Open source implementations available	Yes	Yes	No	Yes	Yes
Uses web services infrastructure (Apache/SOAP)	Yes	No	No	Yes	Yes
Asynchronous and Synchronous support	Yes	AS2 only	No	No	No
SMTP delivery support	Yes	Yes	Yes	No	No
Message authorization	Yes	No	Yes	Limited	Yes
Scores (totals):	18:18	11:18	9:18	9:18	13:18

SWOT Analysis

ebMS (ebXML)

VAN services

Strengths

Open public standard
 Uses internet mechanisms
 Extensible for new techniques
 Supports push & pull delivery
 Any payload enveloping
 Robust partner / role model
 Business process aware
 Security mechanisms
 Interoperability proven
 Existing vendor adoption
 Simple business metaphors

Weaknesses

Setup & Install
 Support services
 Developer use
 Language support
 Marketing budget
 Backup & Archive

Opportunities

Provide foundation for global business
 Included in *nix distribution
 More government adoption
 Developer awareness & use

Threats

Vendors switch to closed systems
 Vendor marketing

Strengths

Legacy EDI support
 Established network
 User handholding services
 Guaranteed level of service
 Domain specific adoption
 Forwarding and routing
 Conformance validation
 Market domain experience
 Backup and archiving

Weaknesses

Cost
 Proprietary mechanisms
 Customer lock-in
 Weak future support
 Business process linking
 Privacy concerns
 No contextual rules
 Setup times

Opportunities

Provide open standards based systems
 Allow SaaS approach
 Trusted intermediary
 Break into new eCommerce service areas

Threats

Single point of failure
 Made obsolete by internet
 Go out of business

SWOT Analysis

ebMS (ebXML)

AS2 / AS1

Strengths

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Opportunities

Provide foundation for global business
 Included in *nix distribution
 More government adoption
 Developer awareness & use

Threats

Vendors switch to closed systems
 Vendor marketing

Strengths

Legacy EDI support
 Open public standard
 Uses internet mechanisms
 Vendor (VAN) support
 Migration of existing EDI

Weaknesses

Setup & Install
 Point-to-point only
 No support for pull mode
 Limited payloads
 No partner / role model
 No business process link
 Backup & Archive
 Developer use
 Language support
 Static limited standard

Opportunities

Migration of existing VAN EDI to AS1/ AS2 based solutions

Threats

EDI diminish in new deployments
 Niche solution only
 Future extensibility
 Limited to EDI payloads

SWOT Analysis

Web Service (WSDL)

Web Service (WS-I)

Strengths	Weaknesses
<p>W3C-based approach</p> <p>Uses internet mechanisms</p> <p>Open source tools</p> <p>Web server support</p> <p>Security mechanisms</p> <p>Integration via XSD</p> <p>Limited content exchanges</p> <p>WSDL-based coupling</p>	<p>Not designed for B2B</p> <p>Enveloping restrictions</p> <p>Point-to-point only</p> <p>No support for pull mode</p> <p>No partner / role model</p> <p>No business process link</p> <p>Fixed XSD transactions</p> <p>Backup & Archive</p> <p>Level of service support</p> <p>WSDL limitations</p>
Opportunities	Threats
<p>Providing real-time supporting content for e-Business solutions</p> <p>Internal information feeds</p>	<p>REST-base ROA interfaces take over</p>

Strengths	Weaknesses
<p>W3C-based approach</p> <p>Uses internet mechanisms</p> <p>Open source tools</p> <p>Strong security model</p> <p>Integration via XSD</p> <p>WSDL-based coupling</p> <p>Large vendor support</p>	<p>Excessive complexity</p> <p>No partner / role model</p> <p>No business process link</p> <p>Fixed XSD transactions</p> <p>WSDL limitations</p> <p>Partner support & setup</p> <p>Total cost of ownership</p>
Opportunities	Threats
<p>Secure information feeds for high risk applications</p> <p>Internal information feeds</p> <p>Complex deployment environment needs</p>	<p>Complexity and cost reduce adoption to niche markets</p>

ebXML Maturity Model

ebXML – ebMS / CPA adoption

	Maturity Level	Prime Business Benefits	Competitive Response	Scope	Technology Analysts	Success Factors
5	Abundant resources	Global Adoption	Vendors look to manage standards	Everyone and everything	Show how they predicted it all in the first place	WS-* viewed as niche toolset
4	Significant Resources	Dramatic reduction in number of meetings & PowerPoint slides	Support integrated as basic platform feature set	Partners, integrators, business users, the CIO's office, accounting, HR, sales	Run seminars, briefings, executive retreats	Developers free to build effective, enabling solutions
3	Lots of Resources	Network effects kick in. Value of ebXML resources finally realized	Vendors admit support, customers demand solutions	Integrators, business users, and folks in accounting	Discover critical impacts, write reports	Regular developers discover how to use
2	More Resources	More information becomes accessible. Interesting uses happen	Vendors develop alternative competing solutions	Application integrators, business users	Get paid to belittle and stop adoption	Advocates resolve issues, empower others
1	Initial Resources	Some information actually becomes accessible	Vendors ignore	Sponsoring business units	Add to watch list	Developers, nobody is watching