

EDISPHERE

Data Reliability

A comprehensive data validation checker

EDISPHERE exhaustively validates the data integrity of your application and partner messages for syntax and situational requirements and reports errors where appropriate.

Target Audience: Technical

By

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Executive Overview

The mission of eliminating human error through the use of Electronic Data Interchange (EDI) in eliminating human error has not been properly accomplished if the EDI data itself contains errors or is otherwise unreliable. To ensure that outgoing and incoming EDI messages are free of error, an EDI translator must have excellent data validation capabilities to scrutinize EDI messages for syntax integrity, implementation guide requirements such as the need for data balancing requirement, conditional or situational requirements, validation of data against external code sets, trading partner specific data validation requirements, etc. This document describes these validation requirements and the validation capabilities of EDISPHERE.

Traditionally, EDI has referred to X12 and EDIFACT data interchange standards, which have been in existence for over three decades. Over a period of years, EDI has enhanced its scope since additional data interchange formats have been used for B2B (*Business to Business transactions*). For the purpose of this document, the term “EDI” will be used generically to refer to a number of file formats used for B2B, including XML, proprietary file formats (fixed length, variable length, comma separated value - CSV), databases and is interchangeably used with B2B. Wherever a distinction is necessary, the same is explicitly mentioned unless it is obvious from the context.

Different validation rules or business rules are categorized into different “testing types” by SNIP/WEDI (www.wedi.org) in their white paper “Transaction Compliance and Certification” for the Healthcare industry. This document has generalized these testing-types as validation-types to describe the industry-neutral validation capabilities in EDISPHERE.

EDISPHERE - EDI Validation Capabilities

EDI syntax integrity validation – EDISPHERE examines the EDI file for valid segments, segment order, maximum segment repeat counts, maximum loop repeat counts, element attributes, mandatory elements, numeric values in numeric data elements, intra-segment condition between data elements such as:

- *Pairing* (P010203 - if any element 1, 2, 3 occurs and then all other must occur),
- *Required* (R010203 – at least one or more of element 1, 2 and 3 must occur),
- *Exclusive* (E010203 – not more than one of the element 1, 2 and 3 may occur),
- *Conditional* (C010203 – if first element 1 occurs, then other elements 2 and 3 must occur),
- *List conditional* (L010203 – if first element 1 occurs, then at least one of the remaining elements 1 and 2 must occur), etc.

This validates both EDI message syntax and compliance with its rules.

EDI implementation-guide-specific syntax integrity validation – EDISPHERE inspects the EDI file for EDI implementation-guide-specific syntax requirements (a sub-set of the EDI syntax integrity requirement), such as limits imposed on segment and loop repeat counts, used and not-used codes, optional elements, and segments that have been made mandatory and not-used. It also provides validation for values and codes noted in the implementation guide via standard code list or table.

Balancing field validation – EDISPHERE checks the EDI file for balanced field totals such as assuring that the total amount resulting from the calculation of the unit price and quantity from the line item segments agrees with the total amount field in the summary segment.

Situation validation – EDISPHERE validates the EDI file for specific inter-segment and intra-segment situations described in the EDI implementation guides, such as: If situation “A” occurs then situational field B must be populated and situational field C remain empty.

External code set validation – EDISPHERE checks the EDI file for valid implementation-guide-specific code set values and other code sets adopted as external code sets.

Validation based on specific field types - EDISPHERE examines the EDI file for criteria such as disparate product types or services described in the EDI implementation guide, requiring the segments or records to use different methods or criteria for validation. An example of this would be the case in which a Government issues a request for proposal which requires different qualification criteria (validations) from submitting companies for dissimilar product types such as miner boots, drilling machines, oil circuit breakers etc.

Partner specific validation - EDISPHERE checks the EDI file for trading partner specific validations that are not described in the EDI implementation guide (only validations common to all partners are specified in the common guide). Such partner specific validations are usually specified in the trading partner agreement or in a companion guide specific to the two partners.

Conclusion

EDISPHERE comprehensively meets your EDI validation requirements. It exhaustively validates your EDI messages for data integrity, logs all EDI errors, apprizes you of the location of errors and automatically generates functional acknowledgement.

You are thereby assured that your incoming and outgoing EDI messages are absolutely error free.

Please send your feedback on the white paper directly to the author at

ajay.sanghi@edisphere.com. It will be highly appreciated.

About the Author

Ajay K Sanghi is the Founder, CEO/CTO of EDISPHERE Software since its inception in 1995. He is a hands-on executive, who continues to passionately contribute in design and coding of EDISPHERE. Ajay is also very passionate about the Company's CSR program.

Ajay has a Bachelor's degree in Electronics Engineering from India and Master's degree in Computer Engineering from USA. Prior to starting EDISPHERE Software, he has worked with the R&D team of leading Telecommunication companies in USA.

Ajay is a vegetarian, loves to jog and practices yoga and meditation. His favorite place is his hometown, Nagpur, right in the center of India, where he was born and grew up with lots of friends. He may be reached at ajay.sanghi@edisphere.com

About EDISPHERE Software

At EDISPHERE Software, we develop Innovative EDI products for automating supply-chain.

Large companies and governments are using EDI technology to improve their operating efficiency and reduce transaction costs. But the high cost of implementing EDI technology continues to be a major barrier.

EDISPHERE is a comprehensive suite of innovative Electronic Data Interchange (EDI) products for seamlessly integrating internal business applications with external partners, which helps automate supply-chain faster, robustly and more cost-effectively. Based out of India; its high-quality R&D and low-cost support provides unbeatable value to its customers in US, UK, Singapore, Hong Kong and South Africa. Additional information about EDISPHERE can be obtained at <http://www.edisphere.com>

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