

EDISPHERE

A Comprehensive EDI Suite

A complete suite for automating supply-chain – quickly and robustly for medium and large enterprises

EDISPHERE is a suite of state-of-the-art any-to-any Electronic Data Interchange (EDI) translation products, which seamlessly integrates your internal business applications with your external partners in high-performing scalable architecture, enabled with active redundancy features; suited for 24x7 business critical EDI environments.

Our development strategy consists of using a *whole-product* approach, which places strong emphasis on its ability to accommodate non-standard and proprietary situations, which are the mainstay of EDI implementation projects for partner integration. The result has been the development of smart and innovative features in the product, which are certain to meet the peculiarities of your EDI requirements in a timely, reliable, and cost-effective manner.

Simply stated, EDISPHERE provides the best value for your EDI (*a.k.a. partner integration*) requirements, whether integration be using X12, EDIFACT, XML, SAP IDOCs, proprietary messages (fixed length, variable length, CSV) or mapping directly to databases.

EDISPHERE products are horizontally oriented (industry-neutral), designed to accommodate the needs of vertical industries such as Automotive, Banking and Financial, Government, Healthcare, Insurance, Manufacturing, Retail, Transportation/Logistics, etc.

Target Audience: Managerial and Technical

By

Ajay K. Sanghi

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www.edisphere.com

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EDISPHERE Software is a privately held company, headquartered in Nagpur, India. More Information is available at it's website <http://www.edisphere.com>

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Executive Overview

The notion that Electronic Data Interchange (EDI) implementation is very complex, time consuming and expensive is alien to EDISPHERE users.

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 X12, EDIFACT, XML, SAP IDOCs, 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.

EDI = X12, EDIFACT, XML, SAP IDOCs, Proprietary formats, Databases

This document starts with a “problem statement”, which describes the motivation behind developing EDISPHERE and the business benefits of using it. It then goes on to briefly describe the product’s capabilities in effectively meeting your EDI requirements.

Problem Statement

Today's global economy is driven largely by Internet and web technologies, which while providing global opportunities have made the conducting of business very competitive. Today’ s businesses are continuously looking for ways to be more efficient and competitive by reducing the costs of doing business.

Businesses normally exchange business documents such as purchase orders, invoices, shipping notices etc., via postal mail, fax and even email. The recipient of these documents then handles the information manually, which is a slow, costly, error-prone and unreliable process. The problem becomes even more severe in the supply-chain, where, every party strives to streamline their operations in handling of these documents.

A solution is therefore desired which would seamlessly integrate the supply-chain cost-effectively.

Solution

The solution lies in integrating your business application with **EDI translation products**, which enable interoperability between the trading partners using various EDI file formats like X12, EDIFACT, XML, SAP IDOCs, proprietary file formats etc., without the need to write proprietary programs and no human intervention.

EDISPHERE is a suite of just such EDI translation products. Your company will benefit by reducing your transaction costs, improving operating efficiencies and making you much more competitive. The result, of course, is very satisfied customers – all at a very affordable cost.

EDISPHERE Products

EDISPHERE is a comprehensive suite of data translation products, developed using a whole-product concept. The entire suite consists of the following products:

1. Translator – Any-to-Any Data Translator

Translator **seamlessly integrates** with your business application and will translate live messages in various EDI file formats like X12, EDIFACT, XML, SAP IDOCs and proprietary formats in either direction with your trading partners. It also maps directly to databases. **No programming is necessary for integrating Translator with your Business Application.**

2. Implementor – Designer, Mapper and Simulator

Implementor is a very sophisticated product. It is used for effortlessly create the layout of your business application message and then map that message to a format agreed upon with your trading partner. Business rules may be embedded in this layout for validation and mapping. The Simulator assists in debugging your mapping and testing your EDI implementation even before your business application and trading partners are ready assuring that you are ready to go when they are.

3. Collaborator – Trading Partner Manager

Collaborator is used for establishing trading partner agreement between the two partners. It takes care of determining message envelope parameters and non-message specific tasks such as communication method, output file naming convention, etc. It has features to remotely deploy and support your EDI implementation.

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The features and benefits of EDISPHERE are detailed in its data sheet *EDISPHERE – Translator, Implementor, Collaborator*. A task list for an EDI implementation using EDISPHERE is detailed in a separate document – *EDI Implementation Tasks Using EDISPHERE*.

To undertake an EDI implementation, the products are used as follows:

a) **Implementor:** Create Layouts and Maps

Create the application layout (normally - database, XML, SAP IDOCs or proprietary file layout) so that Translator can recognize and exchange messages with the business application and also validate its data.

Create the partner layout (normally - X12, EDIFACT or XML layout) as agreed upon with the trading partner so that Translator can recognize and exchange messages with the trading partner and also validate the data contained therein.

Create maps correlating the data in the application layout and partner layout, so that Translator can perform the appropriate conversion between the application and partner message formats.

Implementor is packed with smart and innovative features, which significantly simplifies your EDI implementation effort. At the time of layout creation, syntax validation rules are automatically built-into the layout. Test Data Generator will rapidly generate test data to validate your layouts and maps. Analyzer and Simulator will then be used to validate your layouts and maps.

b) **Collaborator:** Create trading partner agreement

Create partner profiles and agreements, so that Translator can exchange messages with trading partners and also to locate the appropriate layouts and map file for conversion.

The Implementation kit is a very innovative feature in Collaborator, used for packaging your entire EDI implementation in a single file for deployment from development system to production system and for support.

c) **Translator:** Perform translation

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Configure various servers like scheduler, sender(s), receiver(s), listener, functional acknowledgement, etc. to send and receive messages between your business application and your trading partners in an unattended mode. Translator uses the files prepared by Implementor (layouts, maps) and Collaborator (trading partner agreement) to perform the translation.

Translator's multithreaded architecture significantly boosts its performance. Its Alert and Notification feature warns you of translation failures via email.

Why EDISPHERE?

1. It comprehensively meets your EDI Requirements

EDISPHERE is designed to meet your current and future EDI requirements. It supports various file formats, including X12, EDIFACT, XML, SAP IDOCs and proprietary messages (fixed length, variable length, CSV). It has strong support for mapping directly to databases due to most users having good resources for programming in SQL. It supports data conversion in any combination, from any one format to any other format. Its XML support enables your web-services requirements.

Our R&D department keeps track of all B2B initiatives and related technologies to ensure that EDISPHERE is current with all relevant technological advances and that your investment in EDISPHERE is safe.

2. Supports your vertical domain

EDISPHERE products are very horizontal (industry-neutral), designed to support all industry verticals like Automotive, Banking/Finance, Computers/Electronics, Defense, Government, Healthcare, Insurance, Manufacturing, Petroleum/Chemicals, Transportation/Logistics, and Utilities etc.

EDISPHERE facilitates different B2B models in Supply-Chain (financial, consignment, replenishment, distribution, etc.) and CPFR (*collaborative planning, forecasting and release models*).

3. Data Reliability

EDISPHERE analyzes both application and partner messages comprehensively for syntax integrity, syntactical requirements, data balancing requirements, situational

requirements, validation of data against external code sets, trading partner specific data validation requirements etc. (*see the white paper – Data Reliability using EDISPHERE*).

The user is thus assured that their messages whether sent or received are error free.

4. Seamless Integration

EDISPHERE seamlessly integrates with your business application by adapting to the file format or database required by your business application. Your application may be on a different operating system. EDISPHERE communicates with your application using a common database, a common directory, and ftp. No programming is necessary for integrating EDISPHERE with your business application if integrated “loosely” in this manner. EDISPHERE also exposes Application Programming Interfaces (APIs) in C, C++, COM, Java, and Web Services for “tighter” integration with your business application (*See white paper – Application Integration using EDISPHERE*).

5. Message Routing

EDISPHERE has excellent routing capabilities enabling it to route messages from your various trading partners to any of your multiple business applications. EDISPHERE uses a combination of Sender information, Receiver information and Message type to provide various options for routing messages. Each trading partner relationship can route message differently.

6. Supports 24x7 Unattended Operation

EDISPHERE can run as a “service” in background. It’s multithreaded architecture uses separate server threads for receiving messages from different sources, sending messages to different destinations, and for scheduling translations etc., which enables the EDISPHERE to operate in 24x7 unattended mode. EDISPHERE has features to report translation failures through email-alerts, which relieves the EDI Administrator from having to constantly manually monitor the system. EDISPHERE will warn the user if disk and memory resources fall below the warning level and suspend it gracefully when critical resources have been depleted beyond a safe level.

7. Performance, Scalability & Availability

EDISPHERE is designed using multithreading and thread-pooling architecture for high performance. It is designed for scalability. The performance can be scaled higher by simply adding a new EDISPHERE server to the EDISPHERE production cluster environment, which will help in load balancing and meet the desired EDI throughput. This

load balancing feature also enables active redundancy and high availability architectures, making EDISPHERE suited for 24x7 mission critical high performance EDI environments. EDISPHERE has the ability to continually maintain its availability, reliability, and performance in proportion to the load placed upon it. EDISPHERE uses separate threads from the tread-pool for translating each interchange, which lends it a significant performance boosts! It is able to support large transactions in excess of multi-megabytes.

8. Tracking Transactions

EDISPHERE performs extensive transaction logging, which is based on X12 message 242 - "Data Status Tracking". Transaction reports can be generated based on multiple criteria, including your own internally defined business or reference key. Errors in translation are notified via email. It has native support for acknowledging the received messages and for reconciling the received acknowledgements with the messages sent. It will support your data retention requirements. EDISPHERE web-reporting system can be used for searching transactions by defining your own filter criteria.

9. Low implementation effort

Owing to the extremely intuitive UI, not only does the product have offer a very low learning curve but also in addition, productivity features like Analyzer, Test Data Generator and Simulator significantly reduce the implementation effort (*see the white paper - Mapping Simplified using EDISPHERE*).

The amount of effort needed to set up an EDI Implementation using EDISPHERE is probably among the lowest in the Industry.

10. Communicating with your partner

EDISPHERE can be easily configured to communicate with your partner over Internet and EDI VANs using email and/or FTP. If you wish to communicate with your partner using a different communication protocol (e.g. AS2), then use appropriate communication software from a different vendor and seamlessly exchange EDI files with EDISPHERE by setting up common folders.

11. Centrally manage your EDI implementation and partner relationships

For multi-location companies deploying EDISPHERE in their various office locations, the "Implementation Kit" feature in EDISPHERE can be very effectively used for centrally managing your implementations and trading partner relationships. The entire EDI implementation for various locations can be carried out at one central location and using

the Implementation kit feature the same can be deployed and upgraded at these locations. This feature is also used to provide quality support as explained below.

12. Quality Support

EDISPHERE has a number of built-in features to ensure quality support. Features such as “Implementation Kit”, not only assist in the remote deployment of your EDI implementation, but the added ability to forward the Implementation kit to our technical support team helps us to reproduce your problem promptly, which in turn helps us in providing quality support.

13. Unbeatable Value

The low EDI implementation effort in EDISPHERE coupled with low product license fees and low implementation charges make your EDI implementation extremely cost-effective. Our high-quality low-cost R&D provides unbeatable value for your investment dollar.

14. Leverage your IT investments

As the business grows, businesses invest heavily on a range of business applications for their supply chain management (SCM), enterprise resource planning (ERP), human resource (HR), customer relationship management (CRM), etc. Very soon the entire organization is connected ‘internally’ but through different applications which are not interconnected. Either some manual effort is required to exchange data back and forth between these applications, which is slow and error-prone; or a proprietary program has to be written for integrating internal applications. Also, when businesses acquire new businesses and wish to consolidate data between different branches, the need for integrating different applications again arises.

The problem becomes more severe when external partners are to be integrated with different internal applications and the cost of doing business with ‘external’ partners starts becoming a significant ‘competitive’ factor. The heavy investments you have made in the internal applications are highly underutilized for the lack of seamless integration between internal applications and external partners.

EDISPHERE solves these problems by acting as a central hub between these internal applications and external partners, exchanging data in the format desired by them.

15. EDISPHERE Roadmap

EDISPHERE is being enhanced for software as a service (SaaS) architecture, which is expected to be released in 2009. EDISPHERE SaaS release will expose web services conforming to service oriented architecture (SOA) so that enterprise application integration (EAI) can be achieved through programs written in business process execution languages (BPEL). EDISPHERE roadmap is absolutely state of the art and it ensures that your investment will never be obsolete.

Conclusion

EDISPHERE is an EDI whole-product, consisting of Productivity tools, which help you to achieve your EDI implementation faster and Translation products, which integrate with your business application and quietly processes transactions in the background.

EDISPHERE helps you to design your business application messages in a manner designed to assure achievements of your long-term IT goals without the added concern about future modifications required by the data formats of your new and existing trading partners.

EDISPHERE simplifies your complex mapping requirements. It helps you to beat your EDI deadlines handily and cost-effectively.

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, which is based on Mahatma Gandhi's "Swadeshi" principles.

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; it's 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>

Contact:

EDISPHERE Software Private Limited
215 Congress Nagar, Nagpur 440012, India

Tel (India): +91 712 246 3314

Tel (USA): +1 408 (649)-5635 (Uses VOIP – call answered by Nagpur office)

Fax: +91 712 246 3315

Email: info@edisphere.com