EDI VS XML

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What is EDI?

- EDI (Electronic Data Interchange) is the computer-to-computer exchange of business documents, such as purchase orders and invoices, in a standard electronic format, between trading partners. In today's business environment, EDI is the most commonly used technology for B2B ecommerce – it's a game-changer across all industries and the lifeblood of many successful businesses.

- The purpose of EDI is to have computers exchange data without any human intermediary.

- An EDI transaction is between computers, so having a user-readable format is unnecessary because the descriptive tags would just make the transaction files so much larger

- EDI data follow a set of standard schematics called transaction sets intentionally making them have a rigid format. This makes it possible for computers to validate EDI files before translating them, which is important in an automated transaction

- EDI Standards such as ANSI X12 - these standards define exactly where each piece of data is to be located in the electronic business document.

- EDI transmitted using different types of secured communication protocols (i.e. NAESB, VAN, AS2, FTP, sFTP…).

What is XML?

- XML stands for eXtensible Markup Language

- Markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

- The XML format have tags to describe the data they enclose.

- An XML document does not have a standard template allowing for a more free form format. This may make it easier for businesses to create and manage their own XML files, but a free form format is not suitable for transactions between computers because computers can't read documents like humans do.

- XML use web service as "a method of communication between two electronic devices over a network. It is a software function provided at a network address over the web with the service always on as in the concept of utility computing".

Pros and Cons of EDI

Pros

- No need for human intervention

- Uniform data format

- Smaller data file

Cons

- Not human readable

- More Rigid

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EDI

The Transportation/Sales Invoice is the communication between companies that itemizes goods shipped or services rendered and specifies the price and term of the transaction. It also serves as a request for payment and documents that goods have been provided or services have been performed. The types of transactions invoiced in the natural gas industry include gas sales, gas transportation and related charges and/or allowances.

```
ST*811*123456789
BIG*19960313*501996*****T7
DTM*AAG****D8*19960323
N1*PE**1*808300594
N1*PR**1*508969989
HL*001**IB
LX*011
REF*KSR*1234
DTM*007****RD8*19960201-
19960202
```

Pros and Cons of XML

<u>Pros</u>

- Human readable

- Not regulated by standards

- Flexibility

<u>Cons</u>

- Larger data files

- Must be customized between business partners

XML

Format has tags that describes the data that is enclosed. Below is a XML snippet example of an 811 - both the Transportation/Sales Invoice (3.4.1 TSIN) and Service Requester Level Charge/Allowance Invoice (3.4.4 SRCA) from a trading partner.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="http://www.nnqco.com/invoicing.xmlmodel.invoice.INVOICE"
    targetNamespace="http://www.nnqco.com/invoicing.xmlmodel.invoice.INVOICE">

    <!-- BASE TYPES (no dependecies)-->
    <xsd:complexType name="LineDetailChargeDataType">
        <xsd:sequence>
            <xsd:element name="chargeIndicator" type="xsd:string" />
            <xsd:element name="chargeType" type="xsd:string" />
            <xsd:element name="chargeTypeRate" type="xsd:decimal" />
        </xsd:sequence>
    </xsd:complexType>

    <xsd:complexType name="LocationDataType">
        <xsd:sequence>
            <xsd:element name="deliveryLocation" type="xsd:int" />
            <xsd:element name="deliveryLocationProprietaryCode" type="xsd:int" />
            <xsd:element name="deliveryZone" type="xsd:string" />
            <xsd:element name="receiptLocation" type="xsd:int" />
            <xsd:element name="receiptLocationProprietaryCode" type="xsd:int" />
            <xsd:element name="receiptZone" type="xsd:string" />
        </xsd:sequence>
    </xsd:complexType>

    <xsd:complexType name="LineDetailBillingCodesType">
        <xsd:sequence>
            <xsd:element name="chargeIndicator" type="xsd:string" />
```

Open Discussion