



The eSolutions team would like to thank you for showing interest in our new XML tool "IM Mustang". In this Set up Guide you will find everything you need to get started implementing "The Easiest Tool on Earth".

IM Account #:

IM #:

ID and Password:

User Name:

Password:

Posting Documents:

External Admin Site for testing and tracking orders:

<https://coronado.ingrammicro.com/imxml/login.jsp> To sign in use the administrator IM-XML credentials (User ID and password) provided by ECS.

Additional Credentials:

Only the administrator (admin) IM-XML credentials provided by ECS can be used to log into <https://coronado.ingrammicro.com/imxml/login.jsp>

You as the Ingram partner can set-up additional IM-XML credentials for users to login and send through XML transactions. Please ensure to select the correct country.

Post directly to the following URL:

<https://newport.ingrammicro.com/mustang>

Useful Links

Information on the differences between XMLHTTP and Server XMLHTTP:

<http://support.microsoft.com/default.aspx?scid=kb;EN-US;q290761>

Support document on using free threaded XMLDOM.

<http://support.microsoft.com/default.aspx?scid=kb;en-us;Q297997>

FAQ

Q: What transaction standards does IMMustang use?

A: The transaction standards are written specifically for use with Ingram Micro and will not work with anybody else.

Q: Why use Ingram Micro specific XML transaction standards; why not use established XML transaction standards?

A: Ingram Micro uses internally designed XML transaction standards because they are the most effective way to guarantee performance and functionality in the areas that matter the most. A lot of commonly used standards are too complex, too simple or designed for different industries.

Q: Does using an Ingram Micro transaction standard mean proprietary development?

A: Yes. XML as a language can be used generically with multiple partners. The proprietary development will come from the need to define the meaning of the data according to Ingram Micro and matching it with internal definitions of data. This task is made easier with the detailed documentation available.

Many tools are publicly available that can convert to and from different standards. It would be possible to convert the IM-XML standard to a commonly used standard.

Q: What is an XML Schema and what is it used for?

A: An XML Schema explains the structure and data rules that are applied to all inbound and outbound XML transactions. Schemas are used to dictate how XML documents are created so that they conform to a particular standard, which in this case is the Ingram Micro transaction standard.

Q: What is the difference between a DTD and a Schema?

A: A Document Type Definition (DTD) is functionally similar to an XML Schema. The major difference is in the exact functionality that each provides. XML Schemas were developed to overcome some of the functionality that was lacking in DTD's, such as stronger type checking. The other difference is that DTD's use their own language to define a document type; Schemas use XML to define the elements of an XML document.

FAQ

Q: Are DTD's or Schemas required to process XML documents?

A: The answer to this question depends on the Trading Partners application and circumstances. It is possible to create and parse XML documents without a DTD or Schema; however, no validation on the element names will take place. Validation always takes place at Ingram. By specifying a DTD or Schema, it becomes possible to verify that elements are named correctly is gained and to ensure that other business rules can be met, such as correct data types, and document structure.

Q: How is an XML transaction sent to Ingram Micro?

A: XML request documents are posted to Ingram's Servers (<https://newport.ingrammicro.com/mustang>) using an HTTP – POST command. The Request Document is sent as the request body. This method does not require the client to install certificates in order to use encryption -- just like using a web browser to connect using HTTPS to a web server doesn't require you to install a certificate on your machine.

Q: XML data from Ingram Micro is received in a certain format, but the Trading Partners application requires something different. How can this be solved?

A: The best and easiest solution is to use eXtensible Style sheet Language Transformation (XSLT). This technology allows creation of a template that defines how incoming XML data should be converted into a different format

Q: Is a special XML software application required to use IMMustang?

A: No, the Mustang solution can be used from virtually any client system that can create, post and receive the response documents over the Internet via HTTP/HTTPS. This means that Mustang is not limited to Trading Partners using a particular platform, and can have clients or client applications such as Excel XP, Apache web server, or an SAP system with an XML module.

Q: How can a Trading Partner access XML documents from within their Java applications?

A: The most common method of accessing XML documents from Java applications is to use Sun Microsystems' Java API for XML (JAXP for short). JAXP provides all of the necessary functionality for parsing XML documents using both Document Object Model (DOM) and Simple API for XML (SAX).

Q: Where is the solution physically located?

A: The IM-XML solution is physically located in Ingram Micro's Canada state-of-the-art data center in Dallas, TX.

FAQ

Q: How are XML messages created?

A: The posted XML document is just a text string. The partner can use standard string methods to create a request, or XML document components such as MSXML 3.0

Q: Since XML data is basically text, how can XML documents be protected when they are transmitted on the Internet?

A: IMMustang uses the SSL security protocol over HTTP. This combination of security and transport methods is referred to as HTTPS. Data transferred using this method is encrypted before being sent and the response is encrypted before being returned to the client.

Q: What level of security does SSL provide?

A: SSL can provide up to 128-bit encryption of data. This level of encryption should meet and exceed all current Trading Partner's requirements for data security over the Internet.

Q: What is the easiest way to view XML files?

A: One of the simplest ways to view XML documents is to use Microsoft's Internet Explorer Web browser. All releases of Internet Explorer from version 5 and up contain built-in technology for reading and parsing XML documents. By viewing an XML document in Internet Explorer, it is possible to navigate the hierarchical document tree to view different parts of the document.

Ingram Micro Support:

If you need support with any aspect of Mustang (Problems posting documents, Bug in your XML code), please do not hesitate to call us. The eSolutions team has access to over 10 programmers that have written Mustang, and we can answer your questions. If needed the eSolutions department will arrange for a technical conference call where your programmer can speak directly to an eSolutions Developer here at Ingram

Here is your eSolutions Team: **eSolutions Customer Support** Tel. 1-800-616-4665, option 1, option 3

Email: Electronic.Services@IngramMicro.com

Again we would like to thank you for showing interest, and Ingram Micro is looking forward to doing business over the Internet with you

FAQ

Q: What happens when a Trading Partner sends an invalid transaction?

A: An error message is returned. There could be many different reasons why a transaction may be invalid and different error codes are used to assist in understanding why the failure occurred.

Q: How can transactions be uniquely identified?

A: IMM Mustang allows the Trading Partner to assign a unique ID number for each transaction. This ID number can be up to 18 alphanumeric characters long. In addition to this IMM Mustang uses a Global Unique Identifier (GUID) for each transaction. A GUID is a 32bit unique code and can be used to track individual transactions. An example of a GUID is: **{E28F6D26-D3D8-4F7B-B680-1BD13DB36065}**

Q: What does an XML message look like?

A: Data is marked up and given meaning through the use of 'Tags', 'Attributes' and 'Elements' in a similar way to HTML (Hypertext Markup Language) which results in a 'Document' which is easy for even the untrained eye to understand. This self-describing document combined with its technical flexibility and generic system accessibility is what makes XML so powerful.

Below you can see a sample XML 'Document' for a price and availability request.

```
<PNARequest> - Name of the transaction
<Version1.0/> XML Version
<TransactionHeader> - Name of the ID and PW section
<CountryCode>FT</CountryCode> - Country to send the transaction to
<LoginID>TESTLOGIN</LoginID> - Trading Partners Login ID
<Password>TESTPASSWORD</Password> - Trading Partners Password
<TransactionID>12345</TransactionID> - Unique transaction number (if
required)
</TransactionHeader> - End of the ID and PW section
<PNAInformation SKU=" 214804 " Quantity="10"/> - Ingram Micro SKU and
quantity to check for
<PNAInformation SKU=" 451285" Quantity="5"/> - Ingram Micro SKU and
quantity to check for
</PNARequest> - End of the transaction
You see, it is easy to understand!!!
```