

**IAB E-Business Standards v1.0 beta  
AAAA Registry Integration Guide**

**Released October 2008**

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| --- | --- |
| Creation Date: | 09-30-2008 |
| Last Updated: |  |
| Version: | 1.0 beta |

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Revision History

| Date | Author | Version | Change Reference |
| --- | --- | --- | --- |
| 09-30-2008 | Pascal Bensoussan | 1.0 beta | New document |

**About the IAB Ad Ops Council:**

The Ad Ops Council is dedicated to improving the operational efficiency of interactive advertising. Ad Ops Council working groups regularly include agency-side representatives to help improve communication, understanding, and work process in many areas of the buyer-seller relationship. A full list of Council member companies can be found at: <http://www.iab.net/member_center/35088?iabid=a0350000002Cmy1AAC>

**This document can be found on the IAB website at:** <http://www.iab.net/ebiz>

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# IAB E-Business Standards Overview

High levels of manual transmission and entry of data in the interactive advertising workflow creates large inefficiencies, high levels of errors, and increased billing difficulties. Business document delivery via standard XML schemas will allow for automated receipt and input of data, decrease manual entry and communication errors, and improve overall advertising and financial operations. It is the goal of the IAB and its members to develop a system for transmittal and receipt of all important business communications; this document specifically addresses Request For Proposal (RFP), Proposal, and Order documents with the intent that Invoice will be covered in the next release phase.

This document describes the steps and the technical specifications necessary for integrating a system that uses the E-Business Standards with the AAAA Registry. The AAAA Registry holds necessary location information for trading partners and its use is a requirement of the standards. Additional documentation necessary for full implementation and understanding of the E-Business Standards are:

* Functional Requirements
* Technical Specifications
* XML Overview
* XML schema documentation

All documentation can be found at [www.iab.net/ebiz](http://www.iab.net/ebiz).

# Working with the AAAA Registry

The AAAA ebiz for Media initiative has built an industry-wide directory to capture information critical to conducting electronic business transactions and associated communications within the advertising media industry. The ebiz for Media Registry is the directory that holds this information for Trading Partners, Gateways, and 3rd Party Software Providers.

The AAAA ebiz for Media Registry is the sole cross-media electronic business directory for all entities participating in machine to machine eBusiness transactions in the advertising industry. The Registry stores critical business information that will be provided by three groups:

* Trading Partners: Entities who are sending and receiving electronic transaction information related to the buying and selling of media (i.e., order, invoice, etc) via industry XML standards.
* 3rd Party Software Providers: Entities that provide operational systems necessary for trading partners to conduct business – these are currently comprised of media buying and media sales/traffic systems.
* Gateway Providers: Entities that provide the capability to send and receive electronic messages to and from other Gateways. Messages will be packaged in XML / SOAP standardized formats.

The IAB/AAAA E-Business team recommends that all digital media trading partners use the AAAA registry to get up-to-date information regarding trading partners, their supported eWorkflows, and their gateways to engage in electronic transactions with them.

The trading partner registration and password-based authentication supported by the AAAA Registry to update and access registry information is deemed sufficient to ensure the validity of the information received. Gateways implement their own authentication mechanism to ensure electronic transactions are as secure as possible.

# Buy-side Trading Partners

The AAAA registry has already a clear definition of the buy-side trading partners (agencies, advertisers). For the buy-side, we need to establish more clearly the notion of trading partners.

Buy-side trading partners will be:

* **Online publishers** who run a network of digital properties (aka ‘sites’) available via a web browser (web publisher), a video game (video game publishers), or a cell phone (mobile publishers). We expect those publishers to break-down their business along multiple possible dimensions (e.g., geography, ad format)
* **Ad networks** and **ad exchanges** providing trading services to digital media buyers and publishers.

# Registering to the AAAA Registry

Trading partners participating in the IAB/AAAA E-business transactional workflows will have to register to the AAAA registry.

**AAAA Ebiz for Media contacts to create User IDs:**

Harold Geller: (212) 850-0795 [hgeller@aaaa.org](mailto:hgeller@aaaa.org)

Brian Lewis:(704) 501-4401 [blewis@aaaabenefits.com](mailto:blewis@aaaabenefits.com)

Once user IDs have been created, participants can create their information through the AAAA Registry user interface. The AAAA Registry provides two UI accesses for user acceptance test and for production, with URLs as follow:

User acceptance test: <http://204.8.111.91:8080/ebizformedia>

Production: <https://Registry.ebizformedia.com>

# Getting Started with the Registry API

The AAAA Registry has published an API to download, query, and update the registry. The Registry will provide a library of XML / SOAP messages enabling applications to query the registry for information or update records.

This document is not meant to replace the AAAA Registry API User Guide. For more details around data types, error handling, and update/delete behaviors, please consult the API User Guide.

**Global Rules for APIs**

1. A trading partner can be any of the below types:
2. Registrant; Organizational Unit; Trading Partner; Rep Firm
3. If the **effectiveDate** is Null, today’s date will be used as the input parameter. Otherwise, only trading partners and/ or Rep Firms whose effective date is in range will be returned.
4. If there is at least one trading partner returned by this request, the partnerName, PartnerID, and partnerType columns will be returned in the response.
5. There can be only one Rep firm for each Trading partner for a particular Media type.
6. Organizational units may have media types associated with them.
7. Organizational Unit data will not be returned with any of the below API responses
8. Error codes, if generated, may return an array of error codes depending upon the number of errors which occur.
9. The format for the request and response will be an xml format outlined in the WSDL and xsd documents.
10. If an Invalid Trading Partner Name Effective Date Combination the xml will result in an error code 1014.
11. All GUIDs must be in the following format: [a-fA-F0-9]{8}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9]{4}-[a-fA-F0-9] {12}. If this format is not found an error will be generated and the request will fail.

# Posting a Request

Each XML/SOP message is summarized below with its input and output parameters. Requests which require the Trading Partner name as an input parameter will support an alias as an input parameter. All Request messages must have a Request GUID field and a Request DateTime field. All Response messages must have a Response GUID in the response field and a Response DateTime field. The Response GUID is an echo of the Request GUID.

To send a request, the source system must develop a client that will open-up a connection to the AAAA Registry API server and send a POST request via HTTP. Examples of such clients for C# and Java are provided at the end of this document. The AAAA Registry provides two API accesses for user acceptance test and for production, with URLs as follow:

User acceptance test: <http://204.8.111.91:8080/ebizformedia/services/uat>

Production: https://204.8.111.87/ebizformedia/services/prod

# Updating the AAAA Registry

Registry participants can update their information online via the Registry user interface and update information and relationships through the Registry API. The API supports 5 update calls:

1. **updateContactInfo**: This API will be used to load and maintain all contact information for multiple types of trading partner contacts. This is in addition to the contact information that will be maintained via the updateTradingPartnerInfo API. The contact Type field will contain a value one of the following types: Primary (this is the administrative contact), Buyer, AccountExec, Billing, Traffic, Creative. See AAAA Registry API User Guide for details.
2. **updateTradingPartnerContactInfo**:This API will be used to add or delete associations between existing contacts and their trading partner for a specific period of time. In order to create a contact it is required to use the updateContactInfo API to add the contact information BEFORE using this API to do the association to a trading partner. The trading partner will also be required to be entered into the Registry before using this API. See AAAA Registry API User Guide for details.
3. **updateGatewayRouting**:This API will be used to add or delete unique associations between existing Trading Partners, Gateways, and eWorkflows for a specific period of time.In order to create a relationship it is a requirement to use the updateTradingPartnerInfo API to add the trading partner information BEFORE using this API to do complete the association. The Gateway and eWorkflow information will also need to be added to the Registry via the User Interface. See AAAA Registry API User Guide for details.
4. **updateRepFirm**: This API will be used to add or delete associations between existing Rep Firms and trading partners. In order to create a relationship it is required to use the updateTradingPartnerInfo API to add the trading partner and rep firm information BEFORE using this API to do complete the association. See AAAA Registry API User Guide for details.
5. **updateTradingPartnerProduct**: This API will be used to add or delete product relationships to existing Trading Partners. In order to create a relationship it is required to use the updateTradingPartnerInfo API to add the trading partner information BEFORE using this API to do complete the association. The Product information will also need to be added to the Registry via the User Interface. See AAAA Registry API User Guide for details.

# Downloading the Registry Information (Nightly)

The AAAA Registry offers a bulkDownload API allowing trading partners to perform a download of all information in the Registry. This information can be filtered either by Role (buyer, seller) or Media Type or a combination of both.

Although, we expect the AAAA registry information to change rarely, the IAB E-business team recommends that the information be downloaded nightly to ensure timely synchronization with any update performed by the trading partners in the AAAA Registry.

**Input**

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Required** |
| requestDateTime | =now() | Y |
| GUID | System Gen ID Stamp | Y |
| role | String | N |
| mediaType | String | N |
| effectiveDate | Date | N |

**Notes:**

1. *Role* can be NULL, ‘Buyer’ or ‘Seller’. ‘Buyer’ role includes advertisers and agencies. ‘Seller’ role includes online publishers, ad networks, and ad exchanges.
2. *MediaType* can be ‘Spot-Radio’ or ‘Spot-TV’. There is currently no support for digital media. We suggest one new media type: ‘Interactive’ to describe interactive media sales transactions governed either by negotiated contracts for reserved inventory or by bids for preemptible inventory. **Note that the new media type above will have to be added to the AAAA Registry.**
3. If the *effectiveDate* is NULL then the request will use today’s date in the request.

**Output**

| **Name** | **Description** | **Example** |
| --- | --- | --- |
| responseDateTime | =now() | 2001-12-17T09:30:47-05:00 |
| GUID | Echo of request GUID | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| Errors | array with severity, code, and description or if process is successful | Errors and data would be mutually exclusive |
| ***Array XML node*** | | |
| **Trading Partner Information Block** | | |
| parentID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| parentName | String | Radio Corporation |
| partnerID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| partnerName | String | WXXZ |
| partnerType | Buying Agency, Creative Agency, Advertiser, or Publisher | Publisher |
| mediaType | String | ‘Spot-Radio’ or ‘Spot-TV’ |
| Role | String | ‘Buyer’ or ‘Seller’ |
| repFirmID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| repFirmName | String | Rep Firm NY Office |
| effectiveDate | Date | 2001-12-17 |
| endDate | Date | 2005-12-31 |
| **Contact Information Block** | | |
| contactID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| contactType | String | Primary  Secondary Buyer AccountExec Billing Traffic Creative |
| firstName | String |  |
| lastName | String |  |
| phone1 | String |  |
| phone2 | String |  |
| Email | String |  |
| address1 | String |  |
| address2 | String |  |
| City | String |  |
| State | String |  |
| Zip | String |  |
| Notes | String |  |
| **Trading Partner Contact Associations Block** | | |
| partnerID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| contactID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| **Gateway Block** | | |
| gatewayID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| gatewayName | String | Gateway Name |
| gatewayPrimaryIPAddress | String | 192.168.0.1 |
| gatewaySecondaryIPAddress | String | 192.168.0.1 |
| gatewayURL | String | https:\\www.businessName.com/ |
| **Eworkflow Block** | | |
| eWorkflowID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| eWorkflowName | String | “Seller TV” or “Order 1” |
| eWorkflowVersion | String | 1.2 |
| mediaType | String | Spot-TV |
| **Trading Partner Associations Block** | | |
| Partnered | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| gatewayID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |
| eWorkflowID | String | 0f83d3ce-2f7e-4c7d-9697-b9157b806c07 |

**Example**

This below is a bulk download reply sample in xml format.

<?xml version="1.0" encoding="UTF-8"?>

<!--Sample XML file generated by XMLSPY v2004 rel. 3 U (http://www.xmlspy.com)-->

<bulkDownloadResponse xmlns="http://ebizformedia.com/services/ebizregistry/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://ebizformedia.com/services/ebizregistry/

C:\AAAA\eBizRegistry.xsd">

<responseDateTime>2001-12-17T09:30:47-05:00</responseDateTime>

<GUID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</GUID>

<tradingPartners>

<tradingPartner>

<parentID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</parentID>

<parentName>String</parentName>

<partnerID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</partnerID>

<partnerName>String</partnerName>

<partnerType>TradingPartner</partnerType>

<mediaType>Interactive</mediaType>

<role>Buyer</role>

<repFirmID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</repFirmID>

<repFirmName>String</repFirmName>

<effectiveDate>2007-08-13</effectiveDate>

<endDate>2008-08-13</endDate>

</tradingPartner>

<tradingPartner>

<parentID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</parentID>

<parentName>String</parentName>

<partnerID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</partnerID>

<partnerName>String</partnerName>

<partnerType>TradingPartner</partnerType>

<mediaType>Interactive</mediaType>

<role>Buyer</role>

<repFirmID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</repFirmID>

<repFirmName>String</repFirmName>

<effectiveDate>2007-08-13</effectiveDate>

<endDate>2008-08-13</endDate>

</tradingPartner>

</tradingPartners>

<contacts>

<contact>

<contactID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</contactID>

<contactType>Primary</contactType>

<firstName>String</firstName>

<lastName>String</lastName>

<phone1>String</phone1>

<phone2>String</phone2>

<email>String</email>

<address1>String</address1>

<address2>String</address2>

<city>String</city>

<state>String</state>

<zip>String</zip>

<notes>String</notes>

</contact>

<contact>

<contactID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</contactID>

<contactType>Primary</contactType>

<firstName>String</firstName>

<lastName>String</lastName>

<phone1>String</phone1>

<phone2>String</phone2>

<email>String</email>

<address1>String</address1>

<address2>String</address2>

<city>String</city>

<state>String</state>

<zip>String</zip>

<notes>String</notes>

</contact>

</contacts>

<contactAssociations>

<contact contactID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa" partnerID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa"/>

<contact contactID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa" partnerID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa"/>

</contactAssociations>

<gateways>

<gateway>

<gatewayID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</gatewayID>

<gatewayName>String</gatewayName>

<gatewayPrimaryIPAddress>String</gatewayPrimaryIPAddress>

<gatewaySecondaryIPAddress>String</gatewaySecondaryIPAddress>

<gatewayURL>String</gatewayURL>

</gateway>

<gateway>

<gatewayID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</gatewayID>

<gatewayName>String</gatewayName>

<gatewayPrimaryIPAddress>String</gatewayPrimaryIPAddress>

<gatewaySecondaryIPAddress>String</gatewaySecondaryIPAddress>

<gatewayURL>String</gatewayURL>

</gateway>

</gateways>

<eWorkflows>

<eWorkflow>

<eWorkflowID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</eWorkflowID>

<eWorkflowName>String</eWorkflowName>

<eWorkflowVersion>String</eWorkflowVersion>

<mediaType>Interactive</mediaType>

</eWorkflow>

<eWorkflow>

<eWorkflowID>aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa</eWorkflowID>

<eWorkflowName>String</eWorkflowName>

<eWorkflowVersion>String</eWorkflowVersion>

<mediaType>Interactive</mediaType>

</eWorkflow>

</eWorkflows>

<tradingPartnerAssociations>

<tradingPartnerAssociation partnerID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa" gatewayID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa" eWorkflowID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa"/>

<tradingPartnerAssociation partnerID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa" gatewayID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa" eWorkflowID="aaaaaaaa-aaaa-aaaa-aaaa-aaaaaaaaaaaa"/>

</tradingPartnerAssociations>

</bulkDownloadResponse>

# Open Issues

|  |  |  |
| --- | --- | --- |
| **ID** | **Question** | **Owner** |
| 1 | Should HTTPS be used to access the registry via the API? | Harold Geller, AAAA |
| 2 | For the “effectiveDate” input parameter, is there an expected locale? What calendar is it based off of and what date does it represent (i.e. the date at the server where the registry is running?). | Harold Geller, AAAA |
| 3 | What is the maximum length of a String (e.g. Rep Firm Name, Gateway Name, Partner Name)? | Harold Geller, AAAA |

# Appendix A – Additional Resources

**AAAA Ebiz For Media**

Ebiz For Media web site: <http://www2.aaaa.org/agency/digital/ebiz/Pages/default.aspx>

AAAA Registry WSDL & XSD documents *(need hyperlink)*

AAAA Registry API User Guide *(need hyperlink)*

**Online GUID Generators (from Wikipedia)**

[iGoogle GUID Generator Widget](http://www.google.com/ig/directory?q=guid&hl=en&root=%2Fig&dpos=top&url=hosting.gmodules.com/ig/gadgets/file/113392228650073491842/generateGuid-newguidNet2.xml)

[Online GUID Generator at GuidGen.com](http://www.guidgen.com)

[Online GUID Generator at guidgenerator.com](http://www.guidgenerator.com)

[Generator and index of GUIDs seen in the wild](http://www.guidguide.com)

[UUID (GUID) Generator on the Web](http://www.famkruithof.net/uuid/uuidgen)

[(GUID) Generator for Firefox XPI Extensions](http://www.firefoxextensions.com/guid-generator)

[UUID Generator on the ITU-T website](http://www.itu.int/ITU-T/asn1/uuid.html)

[Online .NET GUID Generator at newGuid.net](http://www.newguid.NET)

**Example of HTTP Post Requests in C# and Java**

C#: <http://www.example-code.com/csharp/http_post_simple.asp>,

http://geekswithblogs.net/rakker/archive/2006/04/21/76044.aspx

Java: http://developers.sun.com/mobility/midp/ttips/HTTPPost/