



# A E G I S



**Developers Integration Lab (DIL)**

**UDDI Registration Guide, Version 2.3**

**7/15/2013**

**REVISION HISTORY**

	<b>Date</b>	<b>Description of Change</b>
1.0	11/29/2012	Initial Release
2.0	1/14/2013	Document Updates
2.1	3/18/2013	Document Updates
2.2	5/13/2013	Document Updates
2.3	7/15/2013	Document Updates

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## 1 Introduction

The Universal Description Discovery and Integration (UDDI) is a XML Based registry to register and locate web service applications. Within the context of a Health Information Exchange (HIE), the UDDI acts as a phone book, providing a method for a Participant to retrieve valid web service endpoints in order to perform various web service calls.

Additional information regarding the UDDI and its implementation within the NwHIN Exchange environment can be found here: [NHIN Web Service Registry Production Specification](#).

Additional questions regarding the DIL UDDI can be addressed to [DIL\\_Support@aegis.net](mailto:DIL_Support@aegis.net).

## 2 Download and Install Certificates

Prior to establishing a connection with the DIL, the user must download and install the AEGIS ROOT CA DIL certificates.

Information regarding the download and installation of these certificates can be found here: [DIL Certificate Install Instructions](#).

## 3 Access to DIL Reference Implementation Endpoints

UDDI presents a web service endpoint used to query the registry. A message is returned with the business entity and associated services.

The DIL UDDI inquiry endpoint is <https://uddi.dil.aegis.net:443/juddiv3/services/inquiry>. This is the UDDI inquiry endpoint for the DIL UDDI server you need to use in your system to access the UDDI Connection information.

**NOTE:** You do not have to set up your endpoints in the DIL IF you are testing an Initiating Gateway ONLY.

**NOTE:** You may be sent an uddiConnectionInfo XML configuration file which will allow you to initiate messages to the DIL. If you opt to include this updated file from AEGIS, you will need to recompile your gateway following the reception of the uddiConnectionInfo XML configuration file. This will work with the CONNECT Open Source Gateway only.

## 4 Configuration of Gateway Properties File

Many of the UDDI issues found within previous gateways were previously resolved, with fixed files attached to the GATEWAY-2141 issue within the CONNECT Open Source Issue tracker. The ticket with these files can be found here: <https://issues.connectopensource.org/browse/GATEWAY-2141>.

The gateway.properties file with the following modifications added is necessary to properly connect to the DIL's jUDDI implementation:

```
# Connection Manager Information - BEGIN
```

```

#-----
# when running Outside of NHIN Connect development environment
use this one...
#UDDIInquiryEndpointURL=https://registry-
vs.nhinonline.net/uddi/inquiry
# when running Inside of NHIN Connect development environment use
this one...
#UDDIInquiryEndpointURL=http://172.16.50.57:8080/uddi/services/in
quiry
# when running Inside of Developers Integration Lab environment
use this one...
UDDIInquiryEndpointURL=https://uddi.dil.aegis.net:443/juddiv3/ser
vices/inquiry
UDDIBusinessesToIgnore=uddi:replication:findbusiness;uddi:replica
tion:findtmodels;uddi:nhinregistry:node
UDDIRefreshActive=true
UDDIRefreshDuration=3600
UDDIRefreshKeepBackups=true
UDDIMaxNumBackups=10
InternalConnectionRefreshDuration=3600
InternalConnectionRefreshKeepBackups=false
#jUDDI Authorization Token Information
JUDDINodeName=default
JUDDIPublisherAuthorizedName=aegis-default-publisher-for-find-
operations
# Connection Manager Information - END

```

Please note, the **JUDDIPublisherAuthorizedName** value is 'aegis-default-publisher-for-find-operations'.

## 5 Third Party JARs

Following the modification of the gateway.properties files, the user must go ahead and install several third party files. Referencing GATEWAY-2141 issue (<https://issues.connectopensource.org/browse/GATEWAY-2141>), the provided attachments to the JIRA ticket contain the code enhancements and modifications necessary to support the jUDDI v3.1.0 implementation within the DIL. This is the other file / modification which must be completed to successfully connect to the DIL.

This is for use with CONNECT 3.2. These same fixes can be applied to CONNECT 3.3.

One attachment, the jUDD\_ThirdParty\_Jars.zip, contains the **jUDDI v3.1.0 third party JARs** that need to be deployed with your CONNECT product. The attachments are found within the GATEWAY-2141 link as posted above.

For CONNECT 3.2, deployed into GlassFish 2.1.1, these JARs need to be copied to the GlassFish "lib" folder or app server classpath. There are three JARs:

- juddi-client-3.1.0.jar
- juddi-core-openjpa-3.1.0.jar

- uddi-ws-3.1.0.jar

## 6 Registering Endpoints using the DIL UI

A Participant's Service Endpoints used to execute the Patient Discovery, Query for Document, and Retrieve Document services within the DIL can be registered within the Gateway Profile Screen. These Endpoints will be used for both Initiating and Responding scenarios. Service Endpoints can be entered and updated within the Gateway Profile screen.

To register a Service Endpoint within the DIL, please perform the following steps:

- Log into the DIL using the Participant login information
- Click 'Gateway Profile' on the left hand menu
  - Text Boxes are provided to include valid Endpoints for each of the Services located under 'Secured Endpoints'.
    - **Service Name:** Includes information on the Service
    - **Service Endpoint:** Location of an Endpoint on a Participant's machine
    - **Service Version:** Version of the service being utilized
    - **Service Profile Name:** Match with the service versions such as GIPSE, CARE, etc.
    - **Service Profile Value:** Applies to the Profile name (i.e. 1.0)

A participant can perform the following functions upon entering their Endpoints:

- **Save:** Saves the Service Endpoint to the DIL Database, but does not publish to the UDDI (used only if the Participant is using their own UDDI implementation). This button appears in the upper right hand corner.
- **Publish:** Saves the Service Endpoints to the DIL Database and publishes the Endpoints to the DIL UDDI. This is recommended for Participants who wish to use the DIL's UDDI implementation.
- **Delete:** Delete the Participant's organization Service Endpoints from the DIL's UDDI implementation, but keeps the service endpoints within the DIL's database. This can be used if a participant wishes to use their own UDDI implementation following registration on the DIL's UDDI.
- **Update:** Allows a Participant to enter new Service Endpoint information and update the information within the UDDI. Removing an Endpoint from the text box and clicking 'Update' will subsequently remove the Service Endpoint from the UDDI.

**Note:** A Participant is not required to publish Service Endpoints to the DIL's UDDI implementation if the Participant is registered as an initiator only. However, the Participant must add the DIL's Endpoints to their organization's internal UDDI implementation.

The mechanism the DIL uses to capture the web services message exchange between the gateway servers is a Gateway Agent application. The agent is a web service proxy that provides the means to intercept the web service traffic by sitting in front of the actual web service endpoint. In order for this to work the agent needs to provide a different host and port number for the actual service and then, after processing the message; e.g. logging to a database repository, forwards the message on to the actual host and port number for the real service endpoint.

Each DIL gateway server has an instance of the Gateway Agent installed where the agent listens on one port for that host machine and then forwards the message on to the same host machine with the actual port number of the service.

In order to avoid the necessity of having each participant install and configure the Gateway Agent on their gateway servers, AEGIS provides a DIL Participant server machine with a single Gateway Agent installed. This agent will then have multiple mapping rules where AEGIS DIL Support will assign a unique proxy port number for each participant gateway server. The DIL Participant server machine is defined as “participant.dil.aegis.net”.

Below is a screenshot of the DIL UI where a Participant can register these Endpoints:

The screenshot shows a web interface for 'Test Participant One - Gateway Profile Information'. It includes a 'Save' button in the top right. Below the title bar, there is a section for 'Gateway Profile Information' with three input fields: 'Machine Name' (filled with 'qapa000.dev.aegis.net'), 'Home Community ID' (filled with '2.16.840.1.113883.3.1259.90.9000'), and 'Assigning Authority ID' (filled with '2.16.840.1.113883.3.1259.90.9000').

Below this is the 'Secured Endpoints' section, which contains a table with four columns: 'Service Name', 'Service Endpoint', 'Service Version', 'Service Profile Name', and 'Service profile Value'. The table is currently empty. To the right of the table are three buttons: 'Publish', 'Delete', and 'Update'. A red rectangular box highlights the table area.

At the bottom of the interface, there is a 'Help - Functions on this page' section with the following text:

- Save:** Save both Gateway Profile Information and Secured Endpoints into lab database (not published to uddi registry)
- Publish:** Save + Publish the Organization details and Secured Endpoints into uddi registry
- Delete:** Delete the complete Organization entry from uddi registry (not deleted from lab database)
- Update:** Save + Update the service end points into uddi registry. blanking out the text in Secured Endpoints fields will result in deleting the respective endpoints from uddi registry

## 7 Ensure Endpoints Registered Successfully

To ensure correct registration:

- Configure the connection manager within the implementation of CONNECT (set the process to **true**)
- Client Service will execute against UDDI and query endpoints within the DIL UDDI
- The **uddiConnectionInfo.xml** file will be populated with all endpoints for the DIL.
- Send an email to [DIL\\_Support@aegis.net](mailto:DIL_Support@aegis.net) with information on your endpoints to complete registration.

**Note:** The CONNECTCommonWeb application contains the UDDI Manager Client Implementation

**IMPORTANT:** The participant endpoint mapping is something the DIL gateways need in order to capture the web service traffic going to the participant from the DIL gateway(s). We are not altering the participant's actual web service endpoints. Please note that once the participant endpoints have been configured within the DIL, the endpoints displayed on the Gateway Profile page will be updated.