



In-House Lab Results

Common Use Case Integration Package

athenahealth, Inc.

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Formerly Laboratory Orders, Ancillary Orders

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* 1. Scoping Process

Your interface project manager is available to meet, assist with questions, and help determine the best-fit options for your project. Instructions for manual scoping are as follows:

1. **Review**:

Please read the Common Use Case Package and complete all form fields and check-boxes to the best of your ability. Should you have questions about the configuration options presented in this document please do not hesitate to discuss with your interface project manager.

If there is a customization request during the implementation process clients are subject to a fee. If there is a request to customize post go-live you will be subject to modification fees.

1. **Approve**:

When this document is completed to your satisfaction, please approve the scope of the interface by typing your name below.

* 1. Scope Approval

I,      , agree to the interface design as described here in this document.

Date:

1. Project Information

Please fill the following to the best of your ability. While not all contacts are required, you should be able to submit at least two contacts at the onset of a new interface project.

|  |  |  |  |
| --- | --- | --- | --- |
| General Information | |  |  |
| Integration Project Name (if applicable) | | |  |
| Vendor  (If applicable, third party data exchange vendor) | Company Name:  (ex. athenahealth, Inc.) | |  |
| Software Product Name:  (ex. athenaNet) | |  |
| Version:  (ex. 14.9) | |  |
| Interface Engine:  (ex. athenaNet MX Engine) | |  |
| Trading Partner Name | | |  |
| Trading Partner Type (ex. Health Information System, EHR, etc.) | | |  |
| athenahealth Practice Context ID | | |  |
| athenahealth Interface Project Manager Name | | |  |
| athenahealth Interface Project Manager Contact Information | | |  |
| Event Number (provided by Interface Project Manager, for internal athenahealth tracking) | | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Contact | Role | Details | |
| Project Business Contact | Responsible for overall success of the project | Name: |  |
| Phone: |  |
| Email: |  |
| Project Interface Contact | Interface expert, responsible for continuing interface support | Name: |  |
| Phone: |  |
| Email: |  |
| Project IT Contact | Networking and security expert, responsible for overall connectivity | Name: |  |
| Phone: |  |
| Email: |  |
| Project Compendium Contact | Responsible for providing the facility’s compendium and order entry questions | Name: |  |
| Phone: |  |
| Email: |  |
| athenaNet Username: |  |
| Vendor Contact #1 | Role: | Name: |  |
| Phone: |  |
| Email: |  |
| Vendor Contact #2 | Role: | Name: |  |
| Phone: |  |
| Email: |  |

1. Product Description

This interface supports inbound lab results from an external third-party system to athenaNet. To ensure compatibility across a wide array of platforms and software vendors interface data is formatted according to HL7 v2 standards.

By choosing to move forward with this standard integration you are committing to the scope outlined below. If you require any customization to this integration, please contact your athenahealth project manager to engage athenahealth’s Integration Design team for detailed scoping. Please note that any customizations will result in this integration becoming a custom interface, and will incur additional fees.

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case | Event | https://lh6.googleusercontent.com/c4eb0UbbwgBZFm5Jww4CiQtBIzwVJNXSXDoKc4T53-e902k5qorcm5eTbaMvAZXsIBPhxVc1gsKdxPEoIG5UhCZNZH-xb5ywZvcBJd-7N04jyU12QBoTDE3Mohn8hQrb4yxpfwcXDefault Message | Functionality |
| Result Capture | Result CREATED in other system | ORU RO1 | Result POSTED in athenaNet |

1. General Interface Configuration
   1. Message Samples and Specs

For athenahealth samples and specifications, please see the (http://www.athenahealth.com/developer-portal/developer-toolkit/by-standard).

* + 1. Clinical Location Information

The Interface Project Manager will configure a Clinical Provider associated with the clinical location/performing facility. This Clinical Provider will represent the in-house LIS/RIS and it will define the electronic repository for the facility’s compendium. Please provide the name and full contact information for your performing facility in the table below.

If the result is not based on an order submitted in athenaNet, a non-orderable compendium would be required to appropriately name each test according to the performing facility.

|  |  |  |
| --- | --- | --- |
| Field | Description | |
| Ordering Location | athenaNet will send the athenaNet department ID and Name where the order was signed/approved. | |
| Performing Facility | Name: |  |
| Full Address: |  |
| Phone Number: |  |
| Fax Number: |  |
| Clinical Provider ID (if leveraging an existing Clinical Provider in athenaNet) |  |
|  | Will this facility route orders to multiple locations? | |

1. Inbound Message Configuration
   1. Results
      1. *Minimum Required Fields for Results Messages*

In order to process a result, the following data fields have to be specified.

|  |  |
| --- | --- |
| Data Field | Default HL7 Field |
| Sending Application (Type of Result) | MSH.3 |
| Sending Facility | MSH.4 |
| Client Account ID | MSH.6 |
| Patient Name | PID.5 |
| Patient Date of Birth | PID.7 |
| Provider | OBR.16\* |
| Result Order Code / Description | OBR.4 |
| Result Values | OBX |

* + 1. *Matching Logic for Results*
       1. Patient Matching Logic

The athenaNet matches results to a patient based on the below criteria. For automated patient matching to occur, the below two fields in the HL7 message must be identical to the data in the patient’s athenaClinicals chart:

* Patient full name (PID.5)
* Patient date of birth (PID.7)

If a result does not match to a patient in athenaNet, it will go into a HOLD status in the department staff bucket for the practice to review.

* + - 1. Tie-to-Order Requirements

In order for a result to tie to its corresponding order, the following logic occurs within athenaNet:

First, the patient information sent in the result must match a patient registered in athenaNet and athenaNet must be able to recognize the result’s order type or identify an electronic order code in the message.

Next, athenaNet will look to match the order document ID to an order document ID in the patient’s chart. (athenaNet sends the order document ID in ORC.2 and OBR.2 and expects to receive the order document ID in OBR.2.)

If the document ID does not match, the interface will compare the following to existing open orders for that patient:

* Order type of the order is an exact match to the order type of the result
* Order status is not DELETED or PENDING
* The creation time of the order is before the collection time of the result

If more than one order meets these criteria, the interface will choose the order with the most recent SUBMIT time or most recent CREATE time if orders are submitted concurrently.

If no orders meet these criteria, the search will automatically look for exact electronic order code matches.

If the criteria above are not met, the result will be marked as unsolicited and will not tie to an order.

* + 1. *Processing Logic for Results Messages*
       1. *Provider Identification*

Based on the provider information in the message, athenaNet will route documents to an athenaNet provider for review. Each provider is required to have a unique identifier included in the message.

Please indicate the provider identifier that will be sent to athenaNet:

|  |  |
| --- | --- |
| Provider Identifier Options | |
|  | NPI |

* + - 1. Message Filtering

athenahealth requests that the vendor system be configured to only send results for providers that are using athenaClinicals. Please confirm that the vendor system will only send results for athenaClinicals providers.

* + - 1. Provider and Department Routing

Inbound results must be routed to a provider and department enabled on athenaNet. Results will be routed based on the provider in the message. athenaNet will sequentially examine all supported provider fields (listed below) to attempt to match a result to the appropriate provider. Once a provider match is found, the result will be delivered to the Clinical Inbox of the provider’s primary department and athenaNet will not continue to look for additional provider matches. Your Interface Project Manager can provide you with a template for denoting each provider’s primary department.

Provider routing will be determined by looking at the following fields in the prioritized order:

|  |  |
| --- | --- |
| Provider Matching Field | Default Priority Order |
| OBR-16: Ordering Provider | 1 |
| ORC-12: Common Ordering Provider | 2 |
| OBR-32: Dictating Provider | 3 |
| OBR-28: Results Copies To | 4 |
| PV1-7: Attending Doctor | 5 |
| PV1-8: Referring Doctor | 6 |
| PV1-9: Consulting Doctor | 7 |
| PV1-17: Admitting Doctor | 8 |
| PV1-52: Other Healthcare Provider | 9 |
| PD1-4: Primary Care Provider | 10 |

* + - 1. Superseding Logic Requirements

Please note that the following section is applicable for **Laboratory Results only**.

athenaNet will process preliminary and final results, as well as corrected results and specimen-rejected messages.

The superseding logic in the interface determines when to overlay new results messages over a previous message based on the External Accession ID or athenaNet Encounter ID in OBR.3, the Order Code and Name in OBR.4, and the sending facility in MSH.4, as well as matching to the same patient chart.

athenaNet can also identify result documents that are an exact duplicate of each other and automatically close all but one result. The following criteria must be identical for a document to be considered an exact duplicate:

* Patient ID
* Clinical Provider ID
* Clinical Order Type
* External Accession Identifier/athenaNet Encounter ID
* Tie-To-Order Document ID
  + - 1. Embedded PDF

Will Embedded PDF be enabled for this interface? If no, please skip to next section.

athenaNet requires the following to process result messages with embedded PDFs :

* PDF is encoded in Base-64 and sent using “encapsulated data” datatype (OBX.2 should contain “ED”)
* Each message corresponds to a single result and contains exactly two OBR segments: the first containing discrete analyte values in as many OBX segments required and the second containing a single OBX with PDF data in OBX.5.5. Both OBR segments must contain the same accession identifier in OBR.2 and order type in OBR.4
* For result types with textual findings for which there is no discrete data, it is acceptable to send a single OBR segment containing PDF Data
  1. Interface Mapping Requirements

It is expected that the client system sends data elements as outlined in the [athenaNet inbound global tables](http://www.athenahealth.com/~/media/athenaweb/files/developer-portal/athenanet_global_tables.xls). (http://www.athenahealth.com/~/media/athenaweb/files/developer-portal/athenanet\_global\_tables.xls)

To utilize this integration athenaNet’s global values must be sent.

To complete scoping, the client or vendor is required to create in Excel a list of custom values to be mapped during implementation and provide it to your Interface Project Manager for verification and review. During the build phase of the project, the client will create these mappings based on this list provided.

For example, if language is selected in the table below, the athenahealth Interface Project Manager is expecting a list containing all available language codes and descriptions in the external system for review. In the build phase, the client will map each of these external codes to the corresponding athenaNet codes.

|  |  |
| --- | --- |
| Data Element | Default HL7 Field |
| Abnormal Flags | OBX.8 |
| Result Status | OBR.25 & OBX.11 |
| Priority | OBR.5 |
| Client Account ID | MSH.6 |
| Provider | OBR.16 |

* 1. Results Auto-Closing

Auto-closure functionality is described as athenaNet receiving an inbound interface message and creating a result document however that result will NOT go to the provider or provider staff's clinical inbox in a 'REVIEW' status. Instead, there will be no notification to the provider or provider's staff via the clinical inbox. The result document will still file onto the patient's athenaClinicals chart. To reiterate, with auto-close functionality, there is no notification to the practice that the result was received. It is also important to consider that for auto-closed results, athenaNet will NOT populate the ordering provider on this document and the audit history will reflect as such.

Do you wish to auto-close all result documents in athenaNet created by this interface? Yes/No

1. Connectivity Method Overview

As part of interface implementation, athenahealth will need to establish a secure method of transfer for electronic data to and from a third-party system. The Connectivity Method Overview contains our current connectivity offering as well as information regarding functionality and project steps.

<http://www.athenahealth.com/~/media/athenaweb/files/developer-portal/Connectivity_Methods_Overview.docx>

For questions, please contact your Interface Project Engineer.

1. Appendices and Other References
   1. Planned Maintenance Window

The athenaNet MX Engine is subject to the same maintenance windows as the general athenaNet application. Currently, 1 A.M. to 3 A.M. Eastern Time is reserved every morning for maintenance. By default, all interfaces are shut-off during this time window, and also remain disabled until 4 A.M. Eastern Time.

* 1. Interface Message Queue Manager

The athenaNet Interface Message Queue Manager (IMQM) is an interactive repository for all interface messages that pass through athenaNet. Messages can be categorized into several processing states. Please note that messages in a final state (processed or deleted) will only remain in the queue for 90 days.

|  |  |
| --- | --- |
| Message State | Explanation |
| SCHEDULED | Scheduled to be sent at a later time |
| NEW | Placeholder for a new message and ready to be sent or received |
| DISTRIBUTED | Delivery or acknowledgement is pending for Global interfaces |
| PENDING | Delivery or acknowledgement is pending |
| PROCESSED | Processed normally; remains in queue for only 90 days |
| ERROR | Generic error encountered; routed to client |
| CBOERROR | Billing related error encountered; routed to client |
| ATHENAERROR | Internal error encountered; routed to athenahealth Client Support Center |
| DELETED | Messages that have been deleted; remains in queue for only 90 days |

In order to access the IMQM in athenaNet to manually resolve common errors, such as missing providers, invalid procedure codes, or unknown departments, the following user permissions must be granted by the local system administrator:

|  |  |
| --- | --- |
| Permission | Use Case |
| Interface Admin: View Message Queue | You want to be able to view the IMQM. |
| Interface Admin: Map Insurance Messages | You need to map insurance messages. |
| Interface Admin: Map Messages (except Insurances) | You need to map all messages excluding insurance messages (e.g. provider and department mappings). |
| Interface Admin: File Upload Interface | You want to be able to upload files via the interface. |

See [athenaNet Interface Queue Management Guide](http://www.athenahealth.com/developer-portal/developer-toolkit/support) for more information on the functionality of the IMQM and on client-side cleanup for ERRORs and CBOERRORs.

* 1. Continuing Service and Support

Within two weeks after go-live your interface will be transitioned into our daily service and support structure.

As a standard practice, athenahealth continuously monitors all client connections and will notify the contacts specified if an error occurs. All jobs are monitored and automatically restarted if idle. For more details please refer to the [Interface Down Support Document](http://www.athenahealth.com/developer-portal/developer-toolkit/support).

To contact athenahealth for questions or modifications to the interface, support can be accessed directly in athenaNet:

