



LabDaq Integration Package

Integration Package

athenahealth, Inc.

Last Updated: August 2020

# 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 |  |  |
| 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: |  |
| Vendor Contact #1 | Role: | Name: |  |
| Phone: |  |
| Email: |  |
| Vendor Contact #2 | Role: | Name: |  |
| Phone: |  |
| Email: |  |

Project Overview:

This is a standardized integration between athenahealth and LabDaq. athenahealth sends lab orders to LabDaq, and receives lab results.

|  |  |
| --- | --- |
| **Technical Overview** | |
| Third Party System | LabDaq |
| Interface Type | In-House Lab Orders, In-House Lab Results |
| Schematic |  |
| Product  Description | |  |  |  |  | | --- | --- | --- | --- | | Use Case | Event | Default Mesage | Functionality | | Order Creation | New order SUBMITTED in athenaNet | ORM O01 | Order SUBMITTED in other system | | Result Captured | Result CREATED in other system | ORU R01 | Result POSTED in athenaNet | |
| Format | HL7 |
| Data Transfer Direction | Outbound Lab Orders  Inbound Lab Results |
| Connectivity Method | SFTP |
| Frequency of Data Transfer | Real Time |
| HL7 Message Type(s) | Outbound (from athenaNet): ORM  Inbound (into athenaNet): ORU |
| Restrictions | Requires athenaClinicals, for full details on orders and results limitations, see Orders Limitations on page 8 |

* 1. Scoping Process

Please read this package and complete all form fields and check-boxes to the best of your ability. Many have been pre-filled for your convenience as this is a pre-scoped standard interface. 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, your practice will need to request a new custom interface, which will be subject to pricing.

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

Scope Approval

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

Date:

# Interface Configuration & Limitations

* 1. Interface Workflow

Interface Message Types and Triggers.

|  |  |  |  |
| --- | --- | --- | --- |
| Enable? | Action | Direction | Default Message |
|  | Orders | Outbound | ORM O01 |
|  | Results | Inbound | ORU R01 |

* 1. Performing Facility Management
     1. Performing Facility Type

|  |  |
| --- | --- |
| Performing Facility Type | |
|  | Laboratory |

* + 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.

|  |  |  |
| --- | --- | --- |
| 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) |  |

* + 1. Compendium Management
       1. Facility Compendium Management

The Interface Project Manager will provide the Project Compendium Contact with a compendium worksheet. The compendium worksheet should contain all orders that you wish to send via the interface to the receiving in-house facility (and reference facilities). After receiving the completed worksheet, the Interface Project Manager will process the compendium through a matching tool, which will attempt to create one-to-one relationships between the athenaNet compendium and the facility-specific order codes. Any facility-specific order codes that are not matched by this tool will be sent through an internal team for further review. athenahealth will map as many of the orders as possible, however it is possible that mappings will not be created for every order in your compendium.

After athenahealth finishes the mapping process, the facility’s compendium can also be made available to you for self-management. Self-managing the compendium allows you to add and edit lab and imaging orders for in-house facilities without going through athenahealth. It also allows you to create or updated mappings for new or existing orderable tests.

Would you like compendium self-management access and responsibility after the orders interface goes live?

* + - 1. Ask On Order Entry Questions

When placing an in-house lab or imaging order that was successfully mapped to an athenaNet order code, the submitter will be exposed to the order’s associated athenaNet global ask on order entry (AOE) questions. athenaNet will send any answered global or custom AOEs in the HL7 message.

Please note that we cannot make changes to the list of athenaNet global AOEs.

1. Outbound Message Configuration
   1. Orders
      1. External ID Management

To assist with patient ID management throughout an integrated health system, athenaNet can store multiple external IDs. External IDs may be used for matching purposes or external IDs may just be interfaced and stored in athenaNet using custom fields. All patient IDs present in athenaNet, including external IDs such as those supplied by an interface or import process, are available to be sent out over the interface.

Please identify Person level Custom Fields here:

|  |  |  |
| --- | --- | --- |
| athena Custom Field Name | athena Custom Field ID | HL7 Field |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Are any of the above external IDs formatted with leading zeros?

Additional comments:

* Athena Enterprise ID will be sent in PID.2
* Patient Medical Record Number will be sent in PID.3
  + 1. Department Filtering

By default, all departments in the tablespace will be able to submit orders via the interface. If you would like to have the ability to filter departments, your practice will need to request a custom interface.

* + 1. Order Submission Method

By default, the interface will route a signed order to a clinical staff user for further documentation or validation. After reviewing the order for accuracy, the staff user will then submit the order electronically via the interface.

Alternatively, there is a practice setting that can be configured to automatically submit orders via the interface upon order signing (without additional validation). When this practice setting is enabled, it will take effect for all interfaced orders from the practice and cannot be configured by order type or interface for only a subset of orders.

|  |  |
| --- | --- |
| Order Submission Options | |
|  | Manual Submission via the Staff Bucket in the Clinical Inbox |
|  | Automatic Submission upon Signed Order |

If you desire an alternate manual order submission route, please speak with your Client Services Representative about configuring Task Assignment Overrides (TAOs) to accommodate your specific workflow.

* + 1. Ordering Provider

The ordering provider must have a valid provider identifier and permissions in athenaNet for the order to submit via the interface rather than via fax. The valid identifiers that will be sent to the LIS is NPI.

|  |  |
| --- | --- |
| Ordering Provider Options | |
|  | NPI |

* + 1. Order Time zone Selection

By default, athenaNet will send Eastern Time Zone in MSH7, OBR6, and OBR7 (if populated) on the order. If your practice requires a different time zone to be sent, please indicate from the selection below. For additional project customizations, please speak to your project manager:

If you do require a different timezone to be indicated on the orders, please also indicate if the timezone offset should be sent. With the offset, the format of MSH7, OBR6, and OBR7 (if populated) will appear as YYYYMMDDHHMISS+/-HHMI i.e 20170927113043-0500. Without the offset, the same example above would appear as only YYYYMMDDHHMISS.

* + 1. Order Processing
       1. Future Orders

athenaNet supports the scheduling of future orders. The future order will go into a PEND status within athenaNet until the day it is to be performed, where it will ‘wake’ automatically in the early morning and send the order message. A user can manually ‘wake’ a future order at an earlier date and the order message will be sent at that time.

* + - 1. Standing Orders

Standing orders in athenaNet are treated as a series of future orders. A future order will be generated for each instance of the recurrence. The first message will submit on the date the series begins. Subsequent orders will submit as they become active (early morning on the date to be performed).

If a patient arrives at an earlier calendar date for a recurring order, the facility must request the applicable order from the practice. A practice user can wake an instance of a standing order earlier than scheduled by applying the ‘wake’ action to the order’s next instance

* + 1. Limitations
       1. Order Cancelations and Modifications

athenaNet does not support a cancel order transaction for cancelling or modifying electronic orders. To cancel or modify an order once it has been submitted via the interface, the order document must be deleted in athenaNet and then a manual call must be placed to the performing facility to ensure the order is canceled in their system as well.

* + - 1. Dedicated Use of In-House Orders Interface

An interface is set up for a specific athenahealth client. The interface will not service clients for whom it is not intended, even if the same format and connectivity apply or if the additional client submits orders to the same clinical provider.

* + - 1. Pre-Existing Orders

Only new orders will submit electronically via the interface. Any order created before the interface goes live, or that has previously been submitted electronically, or has been modified or corrected must be manually updated by the facility. athenaNet does not support order revisions to be sent via the interface. For this reason, we cannot backfill order messages prior to an orders interface go-live.

* + - 1. Order Validation

Order messages are only validated for required data elements necessary for the submission of a compliant order message. Validation based on facility-specific requirements for order types, specimen sources, conditional billing data or other requirements is not supported.

* + - 1. Interface Message Batching

athenaNet does not support the batching of ORM messages; batching must be done in the LIS/RIS. When multiple tests are ordered during a single encounter or under a single diagnosis, each order will be sent as a separate HL7 message. There will be one OBR segment per order message. The unique encounter ID in OBR.3 and document ID in OBR.2 are provided to indicate which unique orders belong to the same encounter. The receiving system is responsible for associating orders to LIS-defined specimens. Please ensure that your LIS/RIS is capable of accessioning based on these identifiers.

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

In order to process a result, the following data fields need to be specified. We expect data to be in the following HL7 fields—please indicate below if it will be different. athenahealth has a max limit of 80 characters per line in the OBX segment, and assumes that a vendor will be formatting results with line breaks that will display a document appropriately.

|  |  |  |
| --- | --- | --- |
| Data Field | Default HL7 Field | HL7 Field Override |
| 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 |  |
| Tie to Order Document ID | ORC 2  OBR 2 |  |
| *\*Please see section 7.1.3.2 for provider routing logic details* | | |

* 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 three 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 widen to include all tests in the same order genus as the original order type in addition to 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. The provider identifier that will be sent to athenaNet is NPI

|  |  |
| --- | --- |
| 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.

If no, results for non-athena providers will be mapped to a staff user. Please designate a default department that all staff results will be routed to.

* + - 1. Auto-Closing Results

Auto-closing results is when athenaNet creates a result document via the interface and files it onto the patient’s athenaClinicals chart *without* routing a task to the provider or provider staff’s Clinical Inbox for review. In this event athenaNet doesn’t populate the ordering provider on the result document and the audit history will reflect as such. Generally, auto-closing makes sense when the sending system only sends results after review/signoff in that system, and auto-closing can then avoid duplicate review in both systems.

Does your organization want to auto-close ALL results created via the interface? Yes/No

**REMEMBER:** This integration only supports auto-closing all results received over the interface and does NOT support conditional logic. If you would like conditional auto-close logic, the integration will be custom and subject to pricing.

* + - 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 | Ordering Override |
| 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 |  |

Additional Comments:

* + - 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. Historical Results
     1. Historical Result Import

Historical results are imported into athenaNet through a separate interface. This interface supports inbound lab results into athenaNet from a legacy system.

Does your practice currently have a live results feed with this same vendor?

What are the date ranges of your data?

**NOTE**: athenahealth will only accept up to 2 years of historical data

* + 1. Minimum Required Fields

To process a result, athenaNet requires the performing facility to populate messages with the HL7 fields specified in table 11. Review the required HL7 fields with the performing facility and vendor.

Table 11 - Required HL7 Fields to Process a Result

|  |  |  |
| --- | --- | --- |
| Data Field | Default HL7 Field | HL7 Field Override |
| 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 |  |

\* Provider values are required; OBR.16 is one of the acceptable fields. For more options and more detail, please see table 13 in section 8.1.8

* + 1. Patient Matching Logic

See section 3.2.1.1

* + 1. Provider and Department Matching Logic

Historical results are mapped to a department and the Clinical Inbox of that department in athenaNet. Historical results that process successfully will auto-close and require no manual intervention. Those that cannot conclusively match to a patient are routed to the Clinical Inbox to be worked. For this reason the department used for historical result routing should be one less frequently used in Production (ex: MAIN OFFICE).

To what department should results be routed:

**HOLD VOLUME**: Generally 5-10% of result documents go into a ‘HOLD’ status to the Clinical Inbox. Please provide resource who is prepared to work this volume in athenaNet.

# Go-Live Authorization Form

## 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.

To contact athenahealth for help or support post go-live, the following resources are available:

1 Integration Monitoring: [IntegrationMonitoringRequests@athenahealth.com](mailto:IntegrationMonitoringRequests@athenahealth.com)

Additionally, it is **required** to provide support contact information for the client and trading partner for use by athenahealth interface support. When possible, general support hotlines and email address are preferred.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Company | Title | Office Phone | Mobile Phone | Email |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## Interface Go-Live Signoff

Reference is made to the Athenahealth services agreement (the “Agreement”) entered into by and between athenahealth, Inc. (“Athena”) and the client set forth on the signature page below (“Client”, “you” or “your”). In order to move your interface (or interface change requiring testing) (the “Interface”) into your athenaNet production environment, you must sign off on the functionality of the Interface by execution of this Go Live Authorization Form. Client agrees to fully cooperate with Athena and provide all assistance reasonably necessary for Athena to create, implement and maintain the Interfaces. Client acknowledges that Athena’s performance is contingent on Client’s timely and effective performance of its obligations and understands that the operability of the Interfaces depends on Client’s ability to maintain its own equipment and functionality. Client has obtained or will obtain all consents, licenses, and waivers and has fulfilled all legal obligations that are necessary to allow Athena to create, implement and maintain the Interfaces. It should be understood that additional changes to the scope of the Interface once loaded into athenaNet production will involve additional project work and potentially incur additional costs. In addition, Client acknowledges that moving the Interface to athenaNet production environment may require changes to athenaNet practice settings and in connection with this Go-Live Authorization Form authorizes all required changes in athenaNet

Upon receipt of this signed form, Athena requires a minimum of 2 business days to move your Interface to go live.

The terms of this Go Live Authorization Form are hereby incorporated into the Agreement and shall become effective upon Client’s signature below. By signing below, Client acknowledges that it is satisfied with the functionality of the Interface set forth below and Client authorizes Athena to enable such Interface to be deployed to athenaNet production.

Client:

By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Print Name:

Position:

Date:

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>

Appendices and Other References

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.

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:

