**CUC - In-House Orders and Results**

Common Use Case Package (CUC)

athenahealth, Inc.

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1. Introduction

This document provides information for an interface that supports the following data exchanges:

* Outbound laboratory and imaging order messages
* Inbound laboratory and imaging result messages
* Inbound clinical document messages

Your organization may not have requested each integration; athenahealth specifies the sections you can skip if they’re not applicable.

* 1. Interface Description

These interfaces support the secure and automated transfer of information between athenaNet and an external third-party system. Interface data is formatted according to HL7 v2 standards to ensure compatibility across a wide array of platforms and software vendors. Interface data may include:

* External patient identifiers (e.g., a medical record number (MRN) assigned by a third-party vendor system)
* Patient demographics (e.g., name, date of birth, address, and so on)
* Patient insurance (e.g., carrier, member ID, and so on)
* Orders
* Results
	1. Scope Overview

This is a pre-scoped standard interface package, which means athenahealth has selected many of the configurations for your convenience. If you require customization to this integration outside of what this document provides, contact your athenahealth Interface Project Engineer and they’ll connect you with the athenahealth Integration Design team for more detailed scoping. Please note that customizing the integration may incur fees.

* 1. Scope Process
1. **Review the project** – Read the entire Common Use Case package
2. **Enter or select required information to configure the interface** –
	1. Double-click the gray fields and boxes that appear in the tables and within the text.
	The Form Field Options window opens.
	2. For fields, enter the information in the **Default Text** field. For checkboxes, select **Checked** or **Unchecked**. For menus, select the option in the **Items in Drop-Down list** box.
	3. Click **OK**.
3. **Approve the project** – Enter your name and date in the Scope Approval section to approve the scope of the interface on page 19.
4. **Return the completed CUC scope document as a Word doc** – this doesn’t require a wet signature and shouldn’t be returned as a PDF.

REMEMBER: Your athenahealth Interface Project Engineer is available to meet, assist with questions, and help you scope the project to determine the best options for your organization.

1. Project Information

General information

|  |  |
| --- | --- |
|  | Details |
| athenahealth practice context ID |       |
| athenahealth practice name |       |
| Event number (provided by Interface Project Engineer for internal athenahealth tracking) |       |
| Vendor name |       |
| Vendor type (e.g., health information system, electronic health record, and so on.) |       |

1. Common and Specific Use Cases

It’s important to understand the related workflows and how this interface will exchange data between athenaNet and the third-party vendor system in support of those workflows.

Review the common use cases described in this table and think about how your organization will use the interface.

Supported Use Cases

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case | Event |  | Functionality |
| Order Creation | New order SUBMITTED in athenaNet |  | Order RECEIVED in other system |
| Result Capture  | Result CREATED in other system |  | Result POSTED in athenaNet |

**Please document your organization’s specific use case and workflows:**

**TIP:** Review common and specific use cases with your athenahealth Interface Project Engineer until you’re comfortable with the intended functionality. This ensures that you can prepare staff for changes to their workflow (e.g., parts of their workflow that are automated versus manual) that often occur with the introduction of a new interface.

1. Interface Enablement

Select the configurations your organization wants to enable for the interface. Check the box in the **Enable** column of this table to make a selection and ensure you select the type of order and/or result in the drop down.

Interface Enablement

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Enable | Action |  | Select Type | Direction | Default Message  |
| [ ]  | Orders |  | Blank | Outbound |  ORM O01 |
| [ ]  | Results |  | Blank |  Inbound |  ORU R01 |
| [ ]  | Historical Results |  | Blank |  Inbound |  ORU R01 |

1. Interface Configuration
	1. Message Samples and Specifications

Visit <https://docs.athenahealth.com/interfaces/guides/hl7v2-documents> to download and review message samples and specifications.

Can you provide sample data for inbound messages to the athenahealth Interface Project Engineer?  Yes is recommended

* 1. Integration Testing

athenahealth provides a non-live, athenahealth-hosted test environment (“Preview”) to facilitate integration testing before moving the interface to production. You should expect the third-party vendor to provide a similar non-live testing environment.

Will the third-party vendor provide a testing environment for this project?  Yes is recommended

If you answered “No,” explain how you will test the integration on the third-party vendor system:

* + 1. Testing Phases

Interface testing generally occurs in two phases: unit testing and end-user testing.

1. **Unit testing phase**athenahealth works directly with the third-party vendor to ensure that both outbound and inbound messages are being triggered, sent, received, and processed successfully in the respective system. During this phase your organization may be asked to confirm that the data in either system looks accurate.
2. **End-user testing phase**
The end-user testing phase begins after the unit testing phase. athenahealth provides general test plans and your organization plans, organizes, and executes interface testing as it relates to practice workflows. athenahealth may provide guidance when appropriate.

**BEST PRACTICE:** athenahealth recommends creating test plans specific to practice workflows, in addition to those athenahealth provides, for a more comprehensive end-user testing phase.

* 1. Connectivity Details

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

<https://docs.athenahealth.com/interfaces/guides/connectivity-documents>

Contact your athenahealth Interface Project Engineer if you have questions.

1. Performing Facility Configuration
	1. Performing Facility Type

Select a performing facility type. If you select Other, enter the names of each different performing facility type (if multiple). For example, if your organization is configuring clinical document messages, enter the type of facility(s) from which the documents originate. Examples include Ambulatory Surgery Center (ASC), Skilled Nursing Facility (SNF), Primary Practice, etc.

Performing Facility Types

|  |  |
| --- | --- |
|  | Option |
| [ ]  | Laboratory |
| [ ]  | Imaging Center |
| [ ]  | Other:       |

Additional Comments:

* 1. Clinical Location Information

The athenahealth Clinical Services team configures an athenahealth “Clinical Provider” for the performing facility (e.g. lab, imaging center). This defines the physical location and is the entity to which the interface(s) and compendium will be tied.

Is there an existing Clinical Provider? If yes, please work with your athenahealth resource to document the Clinical Provider ID.

Existing Performing Facility Information

|  |  |
| --- | --- |
|  |  |
| Clinical Provider ID |       |
| Clinical Provider Name |       |
| Compendium Mapping Case Number |       |

If an existing Clinical Provider is **unavailable**, a new Clinical Provider will need to be created. Please enter the name and contact information for your performing facility(s) in the table below.

Performing Facility Contact Information

|  |  |
| --- | --- |
| Field | Description |
| Ordering Location | athenaNet sends the athenaNet department name and ID to where the order was signed and approved. (List multiple performing facilities in the additional comments section.)  |
| Performing Facility  | Name: |       |
| Full Address: |       |
| Phone Number: |       |
| Fax Number: |       |
|  | Will this facility route orders to multiple locations including reference labs? Additional Comments:       |

**SEND OUT ORDERS TO REFERENCE FACILITIES**: athenaNet supports send out orders if the in-house facility vendor manages routing with the external reference facility. Upon completion, the reference facility sends results directly back to the in-house LIS/RIS/PACS which in turn must route the data back to athenaNet to be tied to the original order. The third-party LIS/RIS/PACS would also be responsible for translating order codes in both directions.

* 1. In-House Commitment

I attest that this interface is intended to transmit orders electronically from an athenaOne client (Table A) to its In-House facility (Table B), according to the criteria checked off below. I understand that I cannot request any other clients be enabled to send orders or any other Facilities be enabled to receive orders through this interface who do not expressly qualify as In-House. I understand that if at any point the Facility no longer qualifies as In-House, I will notify athenahealth, and athenahealth reserves the right to disable the interface.

Please select which of the following criteria applies to the relationship between the athenaOne client and Facility:

|  |  |
| --- | --- |
|  | Option |
| [ ]  | The athenaOne/Clinicals client owns at least 50% of the Facility |
| [ ]  | The Facility owns at least 50% of the athenaOne/Clinicals client |
| [ ]  | The athenaOne/Clinicals client and Facility are each at least 50% owned by a mutual parent company |
| [ ]  | The athenaOne/Clinicals client and Facility participate in the same federally-recognized Accountable Care |
|       | Organization (ACO) or CIinically Integrated Network (CIN) |

|  |  |
| --- | --- |
| Table A | Please list the Legal Name(s), Tax IDs (TINs), and Clinical Provider IDs of the In-House Facility(ies): |
| Legal Name(s) |       |
| Tax IDs (TINs) |       |
| Clinical Provider IDs |       |

Is this interface transmitting orders to the above Facilities through an in-house interface engine?

|  |  |
| --- | --- |
| Table B | Please list the Legal Name(s), Tax IDs (TINs), and Context IDs of the In-House athenaOne/Clinicals clients |
| Legal Name(s) |       |
| Tax IDs (TINs) |       |
| Context ID of the In-House athenaOne/Clinicals clients |       |

* 1. Lab and Imaging Compendium Management

For lab and imaging, your athenahealth project representative will provide the compendium mapping template, which should be populated with all orders that you wish to send via the interface to the receiving in-house facility (and reference facilities). After the template is completed, your project representative will open a case on your behalf to athenahealth’s Clinical Content team so they can complete the mapping process.

Your practice will have an opportunity to review the mapped compendium and can also be granted access for self-management afterwards. Self-managing the compendium allows you to add and edit lab and imaging orders for in-house facilities without opening a support case with athenahealth. It also allows you to create or update mappings for new or existing orderable tests.

Please list the full name and athenaNet username of the individual(s) that will complete the compendium template and approve the mappings:

Would you like compendium self-management access and responsibility for the above users?

* + - 1. Clinical Document Labeling

For clinical documents, your athenahealth project representative will provide an Excel file to populate the OBR-4.1 and OBR-4.2 values and pick a corresponding clinical document classification for the types of documents that will be sent over the interface. Following a similar process as lab and imaging, these values are mapped in athenaNet to enable auto-labeling on the clinical documents.

* + - 1. "Ask At Order Entry" (AOE) Questions

During the ordering workflow in athenaNet, providers will see the “Ask at Order Entry” (AOE) questions that are associated to the given order type. “AOEs” might also be known as order questions and their purpose is to ensure that the performing facility receives the information they’ll need about the patient and/or test.

athenaNet can send AOE questions and responses in NTE or OBX segments. Make your selection here:

* + - 1. Optional AOE Customization

athenahealth maintains AOEs as a global library of content available to our entire network. The compendium mapping process ensures that your in-house facility’s test codes are mapped to the athena global compendium, and this mapping allows the correct AOEs to be displayed to ordering providers. If necessary, your practice can customize some aspects of AOEs. The customization options include deciding which questions should be shown (or not) for an order type, as well as which questions should be required (or not) for the order to be submitted. In addition, answer options can be customized, for example if the athena global question has a free-text response but you would like to configure dropdown options for the response. Customization does not include the ability to change the actual question text or the ability to add new AOE questions that are not already in athena’s global library.

Please indicate here whether you’ll need to customize AOEs:

If you’re not sure, this should be a focus area at the start of testing. Please let your athenahealth project representative know as soon as possible if you discover the need for customization during testing.

**BEST PRACTICE:** Common reasons for practices to customize AOEs include integration with genetic testing facilities, and medical groups with a standalone imaging facility that accepts patients from outside providers.

**REMEMBER:** if the need to customize AOEs is discovered too late in testing, we may not be able to accommodate the request during this project before the interface goes live. However, your practice can open a case to athenahealth’s Clinical Content team at any time for help customizing AOEs.

1. Outbound Message Configuration

This section contains outbound message configurations for laboratory and imaging orders.

**Please skip to section 8 if order messages are out of scope.**

* 1. Filtering

Filtering for outbound order messages can be applied to provider groups or departments.

By default, all departments in the tablespace will be able to submit orders via the interface. However, we can restrict interface access to enable select provider groups or departments to use the interface.

Would you like the in-house orders interface enabled for all provider groups? Please note this will include sending orders for all departments.

[ ]  Provider Group Specific Filtering - please provide a list of all the athenaNet provider group names and IDs that will use the interface:

[ ]  Department Specific Filtering - please provide a list of all the athenaNet department names and IDs that will use the interface:

* 1. Order Submission Method

Lab and Imaging orders can be submitted via an interface by two methods outlined below.

* **Manual validation and submission** – Signed orders are routed to a clinical staff user’s Clinical Inbox for further documentation or validation. After reviewing the order for accuracy, the staff user submits the order electronically via the interface.
* **Automatic submission (no manual validation)** – The interface submits all signed orders automatically without manual review and validation.

Please select the submission method that you would like enabled:

|  |  |
| --- | --- |
| Order Type | Submission Method |
| Lab Orders |  |
| Imaging Orders |  |

**Note:** Each option would apply to all interfaces. The tablespace settings can be set for Lab and Imaging Orders interfaces at the tablespace level. These settings are used to route all messages to interface by default by setting the submitter to ATHENA when all necessary order information is included. During the build phase, you can work with your project engineer and CSM to turn on the setting as requested for lab and imaging order submissions setting. If your organization needs a different manual submission method, contact your Customer Success Manager about configuring task assignment overrides (TAOs).

* 1. Electronic Order Cancellation

This feature will allow you to cancel orders sent electronically to facilities that support cancellation. For these orders, you will see a new Cancel document action when you view the order. Taking this action will move the order into a CANCELLED status and remain in the patient’s record.

Requirements for outbound (athena to LIS/RIS) cancellations:

* The client must have an orders interface set up with an in-house lab and/or radiology facility.
* The receiving LIS/RIS must have the ability to receive cancellations over interface - Order control ID in ORC-1: “CA”.

Does your organization want to enable the cancel orders feature? Yes/No

* 1. Provider ID Management

The ordering provider must have a valid provider identifier and permissions in athenaNet for the order to submit via the interface rather than via athenaFax. The interface configures the provider ID in outbound messages as either the provider’s National Provider Number (NPI) or their athenaNet provider ID.Select one option.

Provider ID Configuration Options

|  |  |
| --- | --- |
|  | Option |
| [ ]  | NPI |
| [ ]  | athenaNet provider ID |

**REMEMBER:** athenaNet does not support including both provider IDs in order messages.

* 1. Order Time Zone

By default, athenaNet timestamps in MSH-7, OBR-6, and OBR-7, will be in Eastern Standard Time (EST).

If you would like to use a different time zone, indicate that here:

These fields will also include the UTC offset by default. This appears as YYYYMMDDHHMISS+/-HHMI (e.g., 20170927113043-0500). You can choose to send time without the UTC offset, which appears as YYYYMMDDHHMISS.

Indicate here if you would like to remove the UTC offset:

**NOTE:** Order time zone cannot be configured by department.

* 1. Patient ID Management

This interface can be configured to send athenaNet Patient IDs and athenaNet Enterprise IDs for practices with an Enterprise tablespace configuration (multiple Provider Groups). Any external patient IDs stored in athenaNet patient-level custom fields can also be sent.

Please use this table to configure PID-2, PID-3, and PID-4. The receiving system must accept HL7 assigning authority in the 4th component of the field (e.g., PID-2.4) if any of these fields will be used for multiple IDs. The second and third columns (custom field name and ID) are only required for external IDs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Patient ID | athenaNet Custom Field Name | athenaNet Custom Field ID | HL7 Field | HL7 Assigning Authority |
|  |       |       |  |       |
|  |       |       |  |       |
|  |       |       |  |       |
|  |       |       |  |       |
|  |       |       |  |       |
|  |       |       |  |       |

Are any of these external IDs formatted with leading zeros?

Additional comments:

* 1. PAMA Appropriate Use Criteria for Advanced Imaging Orders

**Please skip this section if imaging orders are out of scope.**

As part of the Protecting Access to Medicare Act (PAMA) of 2014, Congress included a requirement that ordering providers consult Appropriate Use Criteria (AUC) via a qualified Clinical Decision Support Mechanism (qCDSM) when they order applicable outpatient advanced imaging exams for patients with Medicare Part B coverage. The qCDSM communicates AUC information to the ordering provider to assist in making the most appropriate treatment decision for the specific patient. In addition, ordering providers must make available the AUC information to the furnishing providers for billing purposes. To support our clients with their PAMA obligations, athenahealth has established workflows that allow an ordering provider to consult a qCDSM and communicate AUC information on applicable claims.

By default, the PAMA AUC information is available to be transmitted via printed order or athenaFax. To reduce the potential need for manual data entry, athenahealth can also include the PAMA AUC information with ORM messages when the orders are submitted via interface. Note that athenahealth cannot require a receiving system to consume the information, and you do have the option to elect to exclude the AUC information from being transmitted in the ORM.

Please visit https://success.athenahealth.com/s/PAMAAUC for more information on the PAMA AUC Program including an FAQ document that can help you understand how this program applies to your organization and workflows. Customers should independently determine how the PAMA AUC program applies to them and relates to the scope of this integration use case.

Please use the table below to indicate how athenahealth should configure this orders interface:

CDS AUC Data Transmit Option

|  |  |  |
| --- | --- | --- |
| Enable? | Option | Description |
| [ ]  | Send AUC data in OBX segment | The OBX method is structured data. It sends additional OBX segments when the provider consults a qCDSM. The location of the qCDSM OBX segment can appear as the first or last segment within the OBX segment group, to help you identify the qCDSM data more easily.    Note: When the order is not an advanced imaging order within the scope of CMS’ PAMA AUC Final Rule, athenaNet does not send the additional segment.  [ ]  Send the qCDSM OBX segment as the first OBX segment[ ]  Send the qCDSM OBX segment as the last OBX segment |
| [ ]  | Send AUC data in NTE segments | The NTE method is free-text data. It transmits PAMA AUC data as the first 11 NTE (NTE.1 – NTE.11) segments following the order segment (OBR). If the provider requests any Asks on Order Entry (AOEs), the AOEs will follow in NTE.12.   Note: When the order is not an advanced imaging order within the scope of CMS’ PAMA AUC Final Rule, athenaNet does not send the PAMA AUC NTE segments. In this case, athenaNet sends AOEs as the leading NTE segments.  |
| [ ]  | Do not send AUC data | Select this option if you want athenahealth to exclude PAMA AUC information from the ORM message, even when the order is an advanced imaging order within the scope of CMS’s PAMA AUC Final Rule.If selecting this option, please explain why here:       |

 **BEST PRACTICE**: athenahealth strongly recommends including AUC data with the orders.

* 1. Order Processing
		1. Future Orders

athenaNet supports scheduling future orders. The future order goes into PEND status in athenaNet until the day it’s to be performed, at which point athenaNet “wakes” it automatically in the early morning (~3am EST) and sends the order message. A user can also manually “wake” a future order at an earlier date to send the message earlier than originally scheduled.

* + 1. Reference Orders

athenaNet has direct global interfaces with many reference labs that are available to all of our clients that wish to order directly to those labs.

athenaNet can also support send-out workflows where providers order to an in-house facility (Clinical Provider) and the in-house facility and associated client-operated LIS/interface engine control whether orders are performed in-house or routed to an outside reference lab. This is the current best-practice approach and allows for a streamlined ordering workflow for providers where they can always order to the in-house facility and choose from only the in-house orderable compendium codes. With this setup, clients are responsible for managing the connections between the in-house facility and reference labs, and for translating order codes as necessary. Once an order is submitted electronically over an interface, athenaNet cannot change the order code or change where it was sent.

Another option if it’s necessary to avoid order code translation in the LIS/engine, is to configure the in-house compendium in athenaNet with orderable codes not only from the in-house facility but also all connected reference labs. The in-house facility compendium can contain multiple unique order codes for one athenaNet order type, however at the time of ordering the provider would need to know where the order is ultimately going and which code to select for that facility (in-house vs one of the reference labs). This approach is technically viable but can create a difficult ordering workflow.

For more information, see subsection 10.3.3 (Reference Lab Results for Send-out Tests).

* + 1. Standing Orders

athenaNet supports standing orders for laboratory orders only. athenaNet generates a future order for each instance of the recurrence. athenaNet submits the first order on the date the series begins and submits subsequent orders on the early morning of the date the order is to be performed.

If a patient arrives at an earlier date for a recurring order, the facility must request the order from your organization. A user can “wake” an instance of a standing order to send the message earlier than what was scheduled.

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

In-house orders interfaces are 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 facility (Clinical Provider).

* + 1. Pre-existing Orders

You can only submit new orders via the interface. Your organization must manually update any order that was created, submitted, or modified before the interface goes live. athenaNet does not support order revisions via the interface. For this reason, we cannot backfill order messages prior to or at the time of an orders interface going live.

* + 1. Accession Identifiers

athenaNet doesn’t support the concept of accessioning and so it assigns the clinical document identifier (e.g., order ID) at the test level (e.g., CBC vs. TSH). When generating the electronic order message (ORM), athenaNet creates and sends one message per ordered test. A 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/RIS-defined specimens.

* + 1. Interface Message Batching

athenaNet doesn’t support batching ORM messages; batching must be done in the LIS/RIS. When a user orders multiple tests during a single encounter or under a single diagnosis, athenaNet sends each order as a separate HL7 ORM message with one OBR segment per order message. athenaNet provides the unique encounter ID in OBR.3 and document ID in OBR.2 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. Order Validation

Order messages are only validated for the data elements required to submit a compliant order message.

1. Inbound Message Configuration

This subsection provides configurations for inbound laboratory, imaging and clinical document result messages. **Please skip to section 9 if inbound result messages are out of scope.**

* 1. Minimum Required Fields

To process a result, athenaNet requires the sending application to include this information in the specified HL7 field. Review the required HL7 fields with the performing facility and vendor.

Required HL7 Fields

|  |  |
| --- | --- |
| Information | 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 |

**NOTE:** \*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. Matching Logic for Results
		1. Patient Matching Logic

athenaNet matches results to a patient based on these data elements:

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

athenaNet matches the results automatically when the fields in the HL7 message are identical to the data in the patient’s athenaClinicals chart. If athenaNet can’t match the results to the patient automatically the result will go into a HOLD status in the department clinical inbox for your organization to review.

* + 1. Tie-to-Order Requirements (also referred to as order matching logic)

athenaNet uses the following logic to match the results to the corresponding order:

* The patient information in the inbound result matches a patient registered in athenaNet.
* athenaNet recognizes the result’s order type or identifies an electronic order code in the message.
* athenaNet looks to match the order document ID to an order document ID in the patient’s athenaClinicals chart. (athenaNet expects to receive the order document ID in OBR.2.)
* If the document ID doesn’t match, athenaNet compares the following data elements to the patient’s existing open orders:
	+ The order type
	+ Order status not in DELETED or PENDING status
	+ Time of order creation vs time of result collection (i.e., the order must have been created before the results are collected)

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

If no orders meet these criteria, athenaNet looks for a matching electronic order code.

If there’s no matching electronic order code, athenaNet marks the result as unsolicited and doesn’t tie it to an order.

* 1. Processing Logic for Results Messages
		1. Provider ID Management

athenaNet routes documents to an athenaNet provider for review based on the provider information in the message. Each provider is required to have a unique identifier included in the message.

Provider ID configuration options

|  |
| --- |
| 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. Reference Lab Results for Send-out Tests

For send-out tests performed at a reference lab, the performing reference lab should send the result back to your in-house LIS, rather than directly to athenaNet. This is a best practice to avoid any issues with how the result renders on the patient chart or ties to the original order. This also ensures your have a copy of the result in the in-house LIS.

For more information, see subsection 9.8.2 (Reference Orders).

* + 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 Matching Logic

By default, athenaNet examines supported provider fields in order of priority (see Priority Matching Logic for Providers table below) to match a result to the appropriate provider. When athenaNet finds a matching provider, it routes the result to the provider’s Clinical Inbox in their primary department and stops looking for additional provider matches. Your athenahealth Interface Project Engineer can provide you with a template for denoting each provider’s primary department.

Review the table below to understand the priority matching logic for providers.

Priority Matching Logic for Providers

|  |  |
| --- | --- |
| Provider Matching Field |  Priority  |
| 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. Order-based Provider and Department Logic

This optional logic is available for **solicited results only**: If enabled, when a matching order document ID is found in OBR-2 of the result message, the interface will ignore any provider primary department mappings and instead will create a Clinical Inbox review task for the ordering provider, in the department from which the order was placed. This can be useful for situations where an ordering provider places an order in a department other than their primary. With this enabled, unsolicited results (no matching order found) will still be routed based on the provider’s primary department mapping.

Please indicate here if you want this enabled:

**NOTE:** If you are expecting ONLY solicited results on this interface and choose to enable the order-based provider/department logic, you can skip the provider primary department mapping table. Please discuss with your athenahealth project representative.

* + 1. Superseding Logic Requirements

Laboratory Results Only - Superseding Logic

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

athenaNet will process preliminary and 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

Imaging Results Only - Superseding Logic

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

The superseding logic in the interface determines when to overlay new results messages over a previous message based on the following conditions:

* Old and New document ID should not be the same
* Old and New document should have the same External Accession ID (OBR.3.1)
* Document should not be deleted
* Document should not be in a closed status
* Old and New document id should not be created via same interface message

The documents which satisfy the above condition will be marked as Duplicate with Text *'This document is a duplicate and has been replaced by document "new documentid'* and will be CLOSED. The new document created by the current interface message will be in REVIEW status.

Note: If the message contains multiple OBR segments i.e Discrete and PDF documents, then custom logic will need to be applied and superseding logic will NOT apply.

Clinical Documents Only - Superseding Logic

Please note that we **DO NOT** offer superseding logic for clinical documents.

* + 1. Embedded PDF Processing Logic

Will your organization enable embedded .pdfs for the interface?

**If you answered “No,” skip to subsection 8.1.10.**

To process result messages with embedded .pdfs, athenaNet requires:

* The .pdf is encoded in Base64
* The .pdf is 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 segment has discrete analyte values in as many OBX segments required
	+ The second segment has 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
	+ It’s acceptable to send a single OBR segment containing an embedded .pdf data for result types with textual findings for which there is no discrete data,
		1. PACS File Link Processing Logic

**Please note that this section is applicable to Imaging Results only.**

Will your organization include Picture Archiving and Communications System (PACS) file links with this interface?

**If you answered “No,” skip to section 9.**

|  |
| --- |
| PACS file link options |
|  |  Result Message contains a complete link in OBR.18 |

athenaNet must receive the URL in the same message as the actual result text. athenaNet doesn’t support receiving the URL and results in separate ORU messages.

Can the vendor system provide a sample PACS File Link?

Is single sign-on from athena to the third party system needed?
*If yes, athena supports SAML 2.0 and your Integration Design resource can provide applicable documentation.*

* 1. Historical Results
		1. Historical Result Import

Historical results are imported into athenaNet through a separate interface. This interface supports inbound lab, imaging or clinical documents into athenaNet from a legacy system.

Does your practice want a historical result import?

**If you answered “No,” skip to section 9**

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.

Required HL7 Fields

|  |  |  |
| --- | --- | --- |
| 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 |       |

**NOTE:** \*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 8.1.2

* + 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.

* + 1. Embedded PDF Processing Logic

See section 8.1.9

* + 1. PACS File Link Processing Logic

See section 8.1.10

1. Interface Mapping Requirements

athenahealth expects the third-party vendor to send data elements in interface messages as they are outlined in the [athenaNet inbound global tables](http://www.athenahealth.com/~/media/athenaweb/files/developer-portal/athenanet_global_tables.xls).

It may not be possible for some vendors to send athenaNet values for the data elements. In these cases, the practice will need to manually create and permanently maintain mappings that link their foreign codes to the ones that exist in athenaNet.  During the build phase the client is required to create a list of custom values to be mapped and provide it to the athenahealth Interface Project Engineer for verification and review. For example, if you select language, the athenahealth Interface Project Engineer expects to receive a list of all available language codes and descriptions for review. Once confirmed, your organization will map each of these external codes to the corresponding athenaNet code

Custom Mapping

|  |  |
| --- | --- |
| 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. Scope Approval

Please provide an **electronic** signature approving the scope of the interface outlined in this document.

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

Date:

* 1. Additional Comments:

1. Appendices and other references
	1. Interface Message Queue Manager

The Interface Message Queue Manager (IMQM) page in athenaNet is an interactive repository for all interface messages that pass through athenaNet. Use the IMQM to view messages or resolve common errors, such as missing providers, invalid procedure codes, or unknown departments. Messages in a *final* state (PROCESSED or DELETED) remain in the queue for only 90 days.

IMQM Processing State

|  |  |
| --- | --- |
| Processing state | Definition |
| SCHEDULED | Scheduled to be sent later |
| 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  |

The *IMQM Permissions* Table lists each permission required to access and make changes in the IMQM. Your local system administer must grant the user permissions.

IMQM Permissions

|  |  |
| --- | --- |
| Permission | Use case |
| Interface Admin: View Message Queue | You want 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 upload files via the interface. |

See the [Interface Message Queue Manager guide](http://www.athenahealth.com/developer-portal/developer-toolkit/support) for more information on the IMQM and your organization’s responsibility for resolving messages in ERROR and CBOERROR status.

* 1. Continuing Service and Support

Your interface is transitioned into our daily service and support structure within two weeks after go-live.

As a standard practice, athenahealth continuously monitors all client connections and notifies the specified contacts if an error occurs. athenaNet Interface Network Monitoring team monitors all jobs and restarts them automatically if they’re idle. For details, see the [Interface Down Support document](http://www.athenahealth.com/developer-portal/developer-toolkit/support).

You can also access support in athenaNet directly if you have questions about or modifications to the interface: On the Main Menu, click **Support** and then click **Get Help**.