



# App Orchard

## Health Endeavors Patient Lookup Implementation Guide

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Epic

## Application Details

*Patient Lookup fills in the gaps with patient-generated and claims data to inform providers with secure, structured patient history, past procedures, medications, diagnoses, remote device data, social determinants and more to achieve a 4-year health history.*

Visit the [App Orchard Gallery](#) for more information about this app.

## Epic Software and Licensing Requirements

In order to implement this application, you will need the following:

### App Orchard Licensing

You will need to license Patient Lookup through Health Endeavors, LLC. See the instructions in the [App Orchard App Request Process](#) guide for further information on this process.

### Software and Licensing

Launch to browser, support of Smart on FHIR

## Project Planning

### Recommended Stakeholders

- Health Endeavors contact(s)
- Interconnect Application Analyst and TS
- Citrix or Hyperspace Platform Administrator
- EpicCare Ambulatory Application Analyst and TS

### Recommended Implementation Project Plan

	Task	Who should be involved	Description	Dependencies
1	App request process	App Orchard point person, Health Endeavors admin	To initiate the app implementation process, your organization's App Orchard Point Person, will need to "Pick" this app.	None

1.a	Contracting	App Orchard point person, Health Endeavors admin	The Health Endeavors administrator has been notified of your organization's interest in the App Orchard integration. Work out contracting details with the vendor administrator.	1
2	Implementation kickoff call	EpicCare Ambulatory analyst and TS, Health Endeavors contacts	Identify who should be involved, designate responsibilities, and set initial timelines for your project.	1
3	Interconnect / Networking setup	Interconnect admin, Network admin, Client Systems TS	Enable the APIs that are needed for this integration and secure them with the appropriate security policy. Make sure the app is able to communicate with your system from outside your organization's firewall.	2
3.a	Verify Interconnect / Networking setup	Interconnect admin, Client Systems TS	Verify that the app can successfully call the APIs setup for this integration	2,3
4	Hyperspace and Desktop Setup (as needed)	Citrix or other Hyperspace platform admin	Complete the Hyperspace and Desktop Setup steps below.	2
5	Application build	EpicCare Ambulatory analyst and TS	Configure Epic to launch the app in the appropriate workflow and for the appropriate users.	2

5.a	Verify application build	EpicCare Ambulatory analyst and TS	Verify that the app is launching successfully from Epic and only accessible for the appropriate users.	2,5
6	End-to-end testing	EpicCare Ambulatory analyst and TS	Test standard and edge case workflows to ensure the app is working as expected.	3,4,5

### Implementation Kickoff Call

Kick off your Patient Lookup implementation by putting together a meeting with the relevant project stakeholders at your organization and from Health Endeavors. Be sure to include your Epic application project teams' TS as needed. Use this time to talk through the scope of the integration, required setup steps, plan timelines, and inform your organization's project owners of their tasks during this project. To prepare for this meeting, also review our [App Orchard Implementation Strategy Handbook](#).

Use this implementation guide as a starting point for this discussion. Include representatives from every area that might have a stake in the project. Err on the side of too much representation at the start. Having everyone necessary present during the kickoff is better than trying to bring teams up to speed several weeks into your implementation. Talk with your vendor and Epic representative if you need help deciding who should be involved in the project. Include the following roles from your organization, Epic, and Health Endeavors:

- Your organization's project manager assigned to this project – The project manager will keep everyone moving in the right direction and help set deadlines for steps along the way.
- Health Endeavors project manager - Health Endeavors contacts will help coordinate and make sure the Patient Lookup configuration is set up.
- Your Epic Technical Coordinator (optional) - Your TC should be aware of your integrations and can help coordinate on the Epic side if necessary.
- EpicCare Ambulatory analyst and TS – Your project team is responsible for the user workflows related to Patient Lookup. They will be doing most of the Epic build and assist with end-to-end testing. Include their TS so they're aware of the project.
- Your organization's Interconnect administrator – Your Interconnect admin will be responsible for enabling the necessary API used for this integration.
- Citrix/Desktop resource – A resource from your Citrix/Desktop team will be involved to help configure Patient Lookup per the configuration below.

- Epic client systems admin (ECSA) – The ECSA will be involved in allowing Health Endeavors connections into your Epic system and allowing their app to function appropriately.

## User & Security Setup

Resource Required: Customer Security Team

Complete the following steps to allow users to interact with the application. You need to determine how users access the application and which users receive that access.

### Patient Lookup Security Considerations

Patient Lookup uses OAuth 2.0 authentication, so the security is needed by the users launching the app. Ensure that users who will be accessing Patient Lookup have the security points below.

The following is a list of security points that Patient Lookup uses. Please review this list with the appropriate stakeholders and make the necessary changes to ensure the web services function appropriately. *The list below is a superset of all the security points for all the FHIR resources this app uses. For more information about security points that FHIR resources need, identify this app's [FHIR Resources](#) in the FHIR Setup & Support Guide.*

- Ambulatory: 1 - Patient Search/Select, 54 - Demographics, 262 - View Only Demographics
- Inpatient: 5 - Patient Summary, 6 - Demographics, 7 - Chart Review, 8 - View Only Demographics
- Nurse Triage/Call Management: 903 - Demographics
- Cadence: 5105 - Edit Patient Record

## Interconnect Setup

Resource Required: Interconnect administrator and Client Systems Web and Service Servers TS

Interconnect needs to be set up to allow the application to access data in Epic.

### Instance Recommendation – OAuth 2.0

For performance and scalability reasons, we recommend that you [Load Balance your Interconnect Servers](#). If you are currently using the [Pre-Configured OAuth2 Instance](#) and the [OAuth2 ARR Use Case](#), you will not need to complete any additional Interconnect build for this integration. For more information on these topics, see the [Interconnect Setup and Support Guide](#) or reach out to your Client Systems Web and Service Servers TS.

Recommended Location	Server: Foreground Instance: OAuth2 (fka FHIR)
Role	FHIR
Cache Listeners	N/A
Business Services	<i>Integration specific web services</i> <ul style="list-style-type: none"> <li>FHIR (EDI) (WSC)</li> </ul>
Security Policy	Policy Name: Default <ul style="list-style-type: none"> <li>Authentication: OAuth2 Tokens</li> <li>Encryption: TLS</li> <li>Bindings: [Bindings]</li> </ul>
Reverse Proxy Pattern(s)	Create a rewrite rule for each pattern below: <ul style="list-style-type: none"> <li>api/fhir/*</li> </ul> Each rule should use Wildcards and rewrite to: https://[hostname]/[instance]/{R:0}

Note that the Reverse Proxy instructions above are related to Microsoft's Application Request Routing (ARR) for IIS. If you use other reverse proxy solution, check with your Client Systems Web and Service Server TS and see the [Citrix NetScaler as a Reverse Proxy Setup and Support Guide](#) or [Configure Big-IP as a Reverse Proxy for mTLS Applications](#) Galaxy guides.

## FHIR

Verify that your organization has done the steps to setup FHIR in the [FHIR Setup and Support Guide](#). In particular, verify the External Patient Facing FHIR and Internal FHIR URL types have externally accessible URLs, as is described in the [Care Everywhere Setup](#) topic.

You can use [the API Configuration Checker site](#) to find your own FHIR Base URL and to check to see if there are any issues in your FHIR implementation.

If FHIR is not configured, work with your EDI TS to complete the FHIR APIs for Meaningful Use Sherlock Checklist.

## Allow Content

### Network Allowlist

Resource(s) Required: EpicCare Ambulatory or Client Systems administrator

If your organization uses a network level domain allowlist, work with your ECSA or security administrators to be sure the following domains are added.

- <https://www.jointheendeavor.com/smart/ehr/launch/epic>

## Hyperspace and Desktop Setup

Resource(s) Required: Citrix or other Hyperspace platform administrator

Your Citrix or other Hyperspace platform administrator needs to add Patient Lookup domains as trusted sites.

The app requires that your web browsers on your Hyperspace servers allow the use of cookies. If you restrict these by default in your browsers, you can enable them by listing the app's domains as trusted sites. Add the following URLs to the trusted site list on your Hyperspace servers. Also, ensure that these sites are enabled to run JavaScript:

- <https://www.jointheendeavor.com/smart/ehr/launch/epic>

## Add Web Resources to Epic Browser Allowlist

Resource(s) Required: EpicCare Ambulatory or Client Systems administrator

For security reasons, you need to enable the app's web resources in the Epic Browser Allowlist Editor activity in Epic November 2020 and later versions (Epic Browser Whitelist Editor activity in prior versions). Follow the steps in the [Browser Allowlist Setup and Support Guide](#) to obtain security to access the Browser Allowlist activity in Hyperspace and enable the following domains.

- <https://www.jointheendeavor.com/smart/ehr/launch/epic>

# Application Setup

## Create and Configure an Integration Record for the Web Application

Resource Required: EpicCare Ambulatory analyst and TS

Follow the steps in the [Create Integration Records for Active Guidelines](#) topic in the Active Guidelines Setup and Support Guide.

### Create a Web App Type Integration Record for SMART on FHIR

Starting in Epic February 2019, we recommend you configure SMART on FHIR FDI records using the Web Integration activity by following the steps in the [Create Integration Records for Active Guidelines](#). To create the Integration Configuration (FDI) record for communication with the app, open the Web Integration activity by entering "Web Integration" in Chart Search within Hyperspace.

#### Shared Settings

Use the following values for both non-production and production settings:

- Display name: Patient Lookup
- Integration type: 5 – SMART on FHIR

- Authentication method: SMART on FHIR (default)

### Non-production Settings

Use the following values when configuring the app for testing:

- URL: <https://www.staging.jointheendeavor.com/smart/ehr/launch/epic>
- Client ID: 8d83b6ac-e42d-470a-9633-944da483f20a
- Launch Context: <key-value pairs specific to non-production testing>

Key	Value
user	%SYSLOGIN%

### Production Settings

Use the following values when configuring the app for production:

- URL: <https://www.jointheendeavor.com/smart/ehr/launch/epic>
- Client ID: 91b10349-57a2-4be4-a4ad-85320c9f8715
- Launch Context: <key-value pairs specific to production testing>

Key	Value
user	%SYSLOGIN%

## Application Build Considerations

### Patient Lookup Security Considerations

You can control API Security in one of three ways:

1. If you use OAuth2, the security points are determined by the users launching the apps. Access is controlled by the security points listed for each FHIR resource or Epic private web service.
2. If you use Managed Externally and are passing the user ID and type in HTTP headers, that user must have the security points listed for each FHIR resource or Epic private web service to successfully consume that resource.
3. If you use Managed Externally and are not passing the user ID and type in HTTP headers, make sure that the default FHIR user defined in the profile has the security points listed for each FHIR resource or Epic private web service to successfully consume that resource. If there is no defined user, we use the current process user, which is your Interconnect background user, so that user must have the security points to successfully consume the resource.

## End-to-End Testing

When you've completed all the required Epic build and system configuration as outlined in this guide, you're ready to begin end-to-end testing. Begin testing in a non-Production (TST or equivalent) environment and if possible, complete testing in Production as well. Testing in Production is the best way to prepare to go live with an App Orchard implementation but it may not be possible due to your organizational policies. Work with Health Endeavors and your Epic TS to test all necessary workflows, taking into account possible edge cases.

Testing with Health Endeavors

- Schedule a meeting with the relevant teams at your organization and Health Endeavors to test workflows and integration points to ensure the configuration is built appropriately in non-Production and/or Production environments.

## Wrap-up

After the implementation is complete, it is highly encouraged for your project managers and team members to provide feedback to the vendor and Epic regarding the app and the implementation process. Provide feedback in the following ways:

- Communicate directly with the vendor to bring attention to any variance in the software received vs. what was expected/promised
- Communicate directly with either your application TS or the App Orchard TS supporting the vendor to bring attention to any improvements that could be made to the implementation guide and install support materials.
- Leave a review of the app on the [App Orchard](#) App Listing. These reviews are viewable by other Epic Community Members and Health Endeavors.

## Ongoing Maintenance

Before any upgrades to a new release of Epic or major updates to Patient Lookup, thoroughly test the app in a non-production environment to ensure that the app functions appropriately when implemented in the production environment.

Regularly monitor system performance metrics like API usage and listen to feedback given from end-users to identify performance issues. If excessive web service calls are impacting performance, work with your application TS and the vendor to resolve the issue.

Continue regular check-ins with the vendor to share feedback on the app. Additionally, encourage end-users to share more feedback once they become more comfortable with the integration workflows. Health Endeavors can use this feedback to develop, test, and implement enhancements to the app.

# Appendix

## Web Service Information

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Patient Lookup uses the following web services:

Web Service Name	Web Service Category	Web Service Class
DSTU2PatientRead	EDI	FHIR

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