



Way to Health Implementation Guide

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Application Details

Epic does not proactively maintain this implementation guide content and Way to Health has not gone live at an organization using this guide yet. If you discover an issue, let Way to Health and your Epic TS know what updates should be made.

Integration Points

Way to Health's embedded view within a patients' chart in Hyperspace allows clinical users to enroll patients and view information about participation in Way to Health programs.

Complexity of Install: Low to *High

The complexity of install was calculated based on the following criteria:

Feature	Frontend (embedded) app	Backend app
Frontend OAuth 2.0	X	
Basic Authentication		
Backend OAuth 2.0		X
FHIR APIs	X	X
Non-FHIR APIs		X
Outgoing APIs		
Interfaces		X
Kit		
Requires Epic build		X
Requires additional validation	X	X
Multi-context app listing		X
Third-party dependencies		

Way to Health recommends starting with the embedded app that launches from Hyperspace. To enable writeback of data points like flowsheets, In Basket messages, and SmartData Elements, you'll also need implement the backend app. Reach out to Way to Health for more information.

For more information on how the complexity of install was calculated, refer to [Complexity of Install](#).

Epic Software and Licensing Requirements

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

Licensing

You will need to license Way to Health through Penn Medicine. See the instructions in [App Request Process](#) for further information on this process. Because Way to Health has multiple components, multiple sets of client IDs are required to properly handle access. The full list of (non-production) client IDs required are:

3ced6ceb-0741-4cf1-83ba-99f3b34d600a - Way to Health

After the App Request process is complete you can verify the Client Records are in your system by going to Record Viewer and searching for EOE records with the names listed above.

This application uses technologies maintained as part of Epic products which may affect your licensing costs from Epic. Please work with your Epic representative to determine if use of this app may affect your licensing costs for the [open.epic API subscription agreement](#), Epic interface licensing, and subscription-based licensing such as MyChart.

Software and Licensing

None

Interface Licensing

The following interfaces may be required for this install, depending on the program(s) being run and clinical workflows surrounding those programs. Reach out to Way to Health for more information.

- Outgoing Patient Administration (ADT)
- Outgoing Appointment Scheduling
- Outgoing Surgical Case Scheduling
- Incoming Clinical Documentation Flowsheet Data.

Project Planning

The table below outlines the basic build tasks your team will need to complete. Your implementation may have a modified scope. Be sure to discuss this during the implementation kickoff call and determine what is in scope and who needs to be involved. See the Implementation Kick-off section for more details. This guide does not include steps like clinical governance approvals, training, or troubleshooting.

Recommended Stakeholders

- Way to Health Implementation Lead
- Way to Health Integration Architect
- EDI Application Analyst and TS
- EpicCare Ambulatory Application Analyst and TS
- ECSA (Web and Service Servers Admin) and Epic Client Systems Web and Service Servers TS
- ECSA (Hyperspace & Citrix Deployment Admin)
- Users & Security Team
- Epic Technical Coordinator and BFF (optional)

Recommended Implementation Project Plan

	Task	Who should be involved	Description	Dependencies
1	Project Prioritization & Contracting	Operational leadership, IT leadership, Penn Medicine	Your organization has communicated interest in Way to Health to operational & IT leadership and the project is ready to begin. Work with Penn Medicine on contracting details.	None
2	Implementation Kickoff Call	EpicCare Ambulatory analyst and TS, Way to Health representatives, IT and operational stakeholders	Identify who should be involved, designate responsibilities, and set initial timelines for your project.	1
2.a	App Request Process	Epic on FHIR user with "Can purchase Apps" permission, Penn Medicine Administrator	To initiate the app implementation process, someone with app download permission will need to request to download this app from the open.epic Downloads page .	2
3	User & Security Setup	Users & Security team	Configure users and security per the Users & Security Setup section below as required by this integration.	2
3.a	Interface Setup	Interface Admin and Epic EDI	Configure the required interfaces as needed by this integration.	2
4	Interconnect Setup	ECSA, Epic Client Systems – Web & Service Servers TS	Enable the APIs that are needed for this integration and secure them with the appropriate security policy.	2,3

5	Allow Content	ECSA, Epic Client Systems – Hyperspace & Desktop TS	Complete the Allow Content steps below to enable the app to communicate with your system from outside your organization's firewall and function appropriately.	2
6	Application Build	EpicCare Ambulatory analyst and TS	Configure relevant Epic application build.	2
7	End-to-End Testing	EpicCare Ambulatory analyst and TS, Way to Health team	Test standard and edge case workflows to ensure the app is working as expected.	3,4,5,6
8	Cutover to Production	EpicCare Ambulatory analyst and TS, Way to Health Team, ECSA	Move all relevant build in Epic and outside system configuration from test environments to production.	7

Implementation Kickoff Call

Kick off your Way to Health implementation by putting together a meeting with the relevant project stakeholders at your organization and from Penn Medicine. 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 [Third-Party 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, Penn Medicine, and Epic:

- 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.
- Clinical/research program lead(s)/champion(s) – The internal stakeholder driving the patient engagement project which will run on the Way to Health platform.
- Penn Medicine/Way to Health Contacts
 - Project manager - Coordinate and make sure the Way to Health configuration is set up, and that the program(s) launches smoothly.
 - Way to Health Integration Architect – oversees technical integration details.

- Way to Health Implementation Lead – works with the clinical/research program leads to determine how the program should run within Way to Health and configures it accordingly.
- EpicCare Ambulatory Application Analyst and TS – Your project team is responsible for the user workflows related to Way to Health. They will be doing most of the Epic build, Content Management/Data Courier tracking, and assist with end-to-end testing. Include their TS so they're aware of the project.
- EDI Application Analyst and TS – You'll be involved in setting up and troubleshooting the HL7 Interfaces this app uses.
- Your Users & Security team will be involved in setting up user security per this guide.
- Epic Client Systems Administrator(s) (ECSA) – Your Interconnect administrator will be responsible for enabling the necessary API used for this integration. Your Hyperspace/Citrix administrator will be involved to help configure Way to Health per the configuration below. The ECSA(s) will also be involved in allowing Way to Health's connections into your Epic system and allowing their app to function appropriately.
- Your Epic Technical Coordinator (optional) - Your TC should be aware of your integrations and can help coordinate on the Epic side if necessary.

Project scoping questions and discussion:

- Have you done an app implementation similar to this before?
- Have you used FHIR before? Which versions?
- Have you used these HL7 interfaces before? In the same configuration as this app? In the same communication method as this app?
- How much time should we allow for training?
- What are upcoming timelines for upgrades in different environments? What about build freezes in different environments?
- Where in a user workflow should Way to Health launch from?
- Does your organization find weekly or bi-weekly project touchbases helpful?
- This app matches to patients in your system & maintains its own patient database. Discuss Way to Health's patient matching strategy and follow-up with your Identity team if necessary.
- Will there be any data written back to the EHR (e.g., to flowsheets, In Basket messages, or SmartData Elements)? If so, this will require the Way to Health Backend app in addition.

User & Security Setup

Resource Required: Users & 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.

OAuth 2.0 Security Considerations

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

- Way to Health uses FHIR which respects your Break-the-Glass settings. Review the FHIR Break-the-Glass Considerations section in the Appendix of this guide with your HIM team to provide additional access if needed.

Create a User for Backend OAuth 2.0 Services

Way to Health - Backend requires a user for authentication of the application to your database. Let your Interconnect Admin know the ID (EMP .1) of this user after you create it (see the Setup for Backend OAuth 2.0 Services section below). Note that the ID field is case-sensitive.

- This should be an active background user and doesn't require having a password set. For more information about background users, see [Background Users](#) in the Users & Security Strategy Handbook.
- Follow your organization's policies for usernames
- Identify the relevant EMP security points and the associated security classes as called out in the Security Points section below. It is recommended to create new security classes or use static security classes, as changes to this background user's security could impact Way to Health - Backend's functions. Add this security class to the newly created User record and track it according to your security change control process.
- The security points for the Way to Health - Backend background user must be set using the default security class for a given Epic application. Background users do not inherit security class overrides by service area or location.
- Way to Health - Backend uses FHIR which respects your Break-the-Glass settings. Review the FHIR Break-the-Glass Considerations section in the Appendix of this guide with your HIM team to provide additional access if needed.

Way to Health User Security Points

The following is a superset of security points that Way to Health might use. Please review this list with the appropriate stakeholders and make the necessary changes to ensure the web services function appropriately.

If your organization is only implementing the frontend (embedded) app, then clinicians only need to have the security points required for the [FHIR Patient resource](#). The backend app's background user will require additional security points.

For more information about security points that APIs need, identify this app's [FHIR Resources](#) in the FHIR Setup & Support Guide, or see the [API Specifications](#) for non-FHIR APIs. In most cases, users will only need a few of the possible listed security points.

- Beaker: 20 - Results Review
- Cadence: 5056 - Future Appointments
- Cadence: 5057 - Past Appointments
- Cadence: Authorized in all service areas? (Cadence Security EMP item 5045) - Yes
- EpicCare Inpatient: 14 - Review Flowsheet
- EpicCare Inpatient: 41 - Enter vitals

- EpicCare Inpatient: 5 - Patient Summary
- EpicCare Inpatient: 54 - History
- EpicCare Inpatient: 59 - Documentation Flowsheet
- EpicCare Inpatient: 59 - Documentation Flowsheets
- EpicCare Inpatient: 6 - Demographics
- EpicCare Inpatient: 7 - Chart Review
- EpicCare Inpatient: 8 - View Only Demographics
- EpicCare: 1 - Patient Search/Select
- EpicCare: 140 - View Flowsheets
- EpicCare: 167 - Documentation Flowsheets
- EpicCare: 262 - View Only Demographics
- EpicCare: 3 - Exam Room
- EpicCare: 41 - History and History Encounter
- EpicCare: 54 - Demographics
- Grand Central: 175 - View
- In Basket: 17 - Disallow sending new messages
- In Basket: The In Basket security class should be configured to allow a user to send message types specified in the SendMessage web service. The application project team member taking point on this integration will provide it to you.
- Nurse Triage - CM: 903 - Demographics
- Nurse Triage - CM: 903 -- Demographics
- Shared: 134 - Edit Concepts
- Shared: 83 - Access Reference Concept Browser

Interface Setup

Resource(s) Required: Interface administrator and Epic EDI

This integration may use some of the following interfaces, depending on the Way to Health programs you run and workflows for those programs. Work with the Way to Health team to determine which interfaces should be used, and your Interface team to set up the required interfaces. Refer to Interface Reference Guides and your EDI support for assistance.

- Interface Kind(s): 2, 4, 32, 97
- Supported Communication Protocols: HTTPS or TCP/IP
- Data Flow:
 - Outgoing Patient Administration (ADT):
 - Can be used to trigger initiation of a post-acute program after a patient is discharged
 - Can be used to silence messaging during an admission for long term (chronic) programs
 - Outgoing Appointment Scheduling
 - Can be used to trigger pre-appointment or post-appointment patient messaging
 - Outgoing Surgical Case Scheduling
 - Can be used to trigger pre-procedure or post-procedure patient messaging

- Can be used (together with the ADT feed) to trigger programs after discharge from a surgical hospitalization.
 - Incoming Clinical Documentation Flowsheet Data.
 - Can be used to file structured clinical data (most often blood pressures) to the patient chart. This is an alternative to AddFlowsheetValue and Observation.Create discussed elsewhere in this guide.

Interconnect Setup

Resource(s) Required: ECSA 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 [Chronicles-Configured OAuth2 Instance](#) and the [OAuth2 ARR Use Case](#), you will not need to complete any additional Interconnect build for this instance. 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	<p><i>Integration specific web services</i></p> <ul style="list-style-type: none"> • R4 (FHIR) (WSC) • HTTP (EDI) (WSC) • Utility (Common) (WSC) • Utility (Clinical) (WSC) • Patient (Clinical) (WSC) <p><i>See the Web Service Information section of the Appendix for the full list of web services used by Way to Health.</i></p>
Security Policy	<p><u>Secured Services</u></p> <p>Policy Name: Default</p> <ul style="list-style-type: none"> • Authentication: OAuth2 Tokens • Encryption: TLS • Bindings: Rest
Reverse Proxy Pattern(s)	Be sure you have configured your reverse proxy by following the steps in the Configure ARR Manually section of the Interconnect Setup & Support Guide.

OAuth2

Make sure the [ARR Use Case for OAuth2](#) (Rule 6) is configured correctly, specifically that your `_OAuth2` or `_Authorization` rewrite rules have these updated settings:

- Regex: `^([\w0-9]+)/)(OAuth2/.*)$`
- Rewrite Url: `https://<VIP of IC Server>/<IC Instance>/{R:2}`

APIs

If you are using the [Chronicles-Configured OAuth2](#) instance kind and you use Microsoft ARR as your reverse proxy, you have the [OAuth2 ARR Use Case](#) already configured and can skip the next section.

Otherwise, add the following rules and use Wildcards instead of the default Regular Expressions.

- `api/fhir/*`
- `api/epic/2015/EDI/HTTP/*`
- `api/epic/2014/Common/Utility/*`
- `api/epic/2013/Clinical/Utility/*`
- `api/epic/2011/Clinical/Patient/*`

Each rule should use Wildcards and rewrite to: [https://\[hostname\]/\[instance\]/{R:0}](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 another 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.

Setup for Backend OAuth 2.0 Services

1. Identify the base URL of the vendor-specific Interconnect instance. If the integration is not using a vendor-specific Interconnect instance, skip this step and proceed to steps 2-3. Step 4 can also be skipped if a vendor-specific instance isn't used.
2. On the Interconnect Administrator's menu in text, select OAuth2 Management, then Edit System Settings. To access this menu, users must have Bridges security point 42-Manage OAuth2 Client Credential Settings.
3. On the "Backend Services" screen, enter the client record of the application you are integrating within the "External Client" column. Specify the User (EMP) record you created in this guide's "Create a User" section above in the "Associated User" column.
4. If you identified an additional vendor-specific URL in Step 1, page down to the "OAuth2 Audiences" screen and enter this non-FHIR base URL to add it to the JSON Web Token allowed audience claim Allowlist.

Allow Content

Add Web Resources to Epic Browser Allowlist

Resource(s) Required: EpicCare Ambulatory analyst and TS, ECSA (if self-hosted) or security administrators (if Epic-hosted)

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).

Starting with Hyperdrive client version 100.7 and for 98 days after you begin using November 2022 or May 2022 with SUs C10205604, E10205604, and E10205629, the Allowed Sources list in the Hyperdrive client also records the URLs for all **subsequent** navigation links accessed from Hyperspace on the Hyperdrive client. Refer to the [Monitor Subsequent Only Mode](#) topic for more information.

Follow the steps in the [Browser Allowlist Setup and Support Guide](#) to obtain security to access the Browser Allowlist activity in Hyperspace and work with your ECSA (if your organization is self-hosted) or your security administrators (if your organization is Epic-hosted) to enable the following domains, which includes initial launch domain and subsequent navigation domains:

- https://*.waytohealth.org

Hyperspace and Desktop Setup

Resource(s) Required: ECSA and Client Systems – Hyperspace & Desktop TS

Your Citrix or other Hyperspace platform administrator needs to add Way to Health 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 IE-11 trusted sites list on your Hyperspace servers. Also, ensure that these sites are enabled to run JavaScript if necessary:

- https://*.waytohealth.org

Network Allowlist

Resource(s) Required: ECSA (if Epic-hosted) or security administrators (if self-hosted)

If your organization uses a network level domain allowlist, work with your ECSA (if your organization is Epic-hosted) or security administrators (if your organization is self-hosted) to be sure the following domains are added.

- https://*.waytohealth.org

Application Build

Resource(s) Required: EpicCare Ambulatory analyst and TS

Hyperdrive Compatibility

Way to Health is compatible with Hyperdrive. When end-to-end testing, you should test the integration in both your Hyperspace and Hyperdrive environments.

Transition from Classic Hyperspace to Hyperdrive

Way to Health requires no changes in Epic and Way to Health configuration to be compatible with Hyperdrive. By following the instructions in the Application Build section, you will enable Way to Health in both Hyperspace and Hyperdrive.

Import Turbocharger Package of Integration Records

Way to Health launches from Hyperspace. A Turbocharger package is available that will deliver the needed set of records to launch from various workflows. Use the following steps to download and import the Turbocharger package. See the Appendix for the full list of records.

The application team responsible for manually building these records should also be responsible for importing them via Turbocharger. Security and training can be provisioned by Data Courier admins if needed.

1. Log into the Vendor Services website and browse to your [Picked Apps](#) Way to Health app listing.
2. Click the "Build Available" link and download the Turbocharger package for the Epic version that your POC (or equivalent) environment is on. The package is an XML document that will download to your machine.
3. Using FTP, or another transfer tool, transfer this XML file to your POC (or equivalent) environment's UNIX directory.
4. Access Turbocharger in Hyperspace. Chart Search: Turbocharger. Note that the Turbocharger activity requires certain security points. Review [Give Users Turbocharger Security](#) Galaxy guide for details.
5. Use the [Import Foundation System Content with Turbocharger](#) Galaxy guide to import the package contents.
 - a. Be sure to review the steps in [Review Package Contents](#).
6. Once all the records are imported, they are nearly ready to be used within workflows in your system.
7. Follow the instructions below to customize it:
 - a. Choose which menu to extend and update the E2U records to add the button to user workflows.
8. Turbocharger can also then create a Content Management or Data Courier ticket that you can use to begin your overall change control tracking for Way to Health

Create a Web App Type Integration Record for SMART on FHIR

You can 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: Way to Health
- Integration type: 5 – SMART on FHIR
- Authentication method: SMART on FHIR (default)
- Launch Context:

Key	Value
epicUsername	%SYSLOGIN%
userFirstName	%USERFNAME%
userLastName	%USERLNAME%
mrn	%EPTID;;;;<IIT record for MRNs>%
csn	%CSN%
frameAncestor	%CLIENTHOSTSOURCE%

- Replace <IIT record for MRNs> with the ID of the ID Type (IIT) record for MRNs. For example, if the IIT record for MRNs is #14, the value for this token should be: **%EPTID;;;;14>%**
- This app uses the %CLIENTHOSTSOURCE% token to determine an allowlist or if the app is frameable, URLs associated with your Hyperspace Web server should be sent to the vendor during installation to allow traffic from your server. To obtain these values, work with your ECSAs or go to 'Epic' > 'Help' > 'About Hyperspace' to view the value of 'Website'. Only the portion ending in the domain is needed. *For example if the website shows https://hsw84-int.epic.com/HSWeb_AOCURPRD_950-0/, <https://hsw84-int.epic.com/> can be shared with the vendor.*

Non-production Settings

Use the following values when configuring the app for testing:

- URL: <https://staging.waytohealth.org/epic/smartLaunch>
- Client ID: 3ced6ceb-0741-4cf1-83ba-99f3b34d600a

Production Settings

Use the following values when configuring the app for production:

- URL: <https://app.waytohealth.org/epic/smartLaunch>
- Client ID: 3aa086b8-6dfb-4143-9100-b8e003ebe2a2

Configure the Launch Link

Create Menu and Activity Records

1. Create a copy of Activity (E2N) record 17310- MR_CLINKB_DEFAULT and give it a meaningful name, activity descriptor, and caption.
2. Create a copy of Menu (E2U) record 17351-MR_IT_CLINKB and configure the following settings.
 - a. Activity Descriptor: Descriptor of Activity record created in step 1
 - b. Run Parameters:
 - i. Go to the next screen and set the URL by FDI parameter to the ID of your integration (FDI) record
3. Add the menu record to the relevant workflow.
4. Repeat Steps 1-3, but this time copy R E2N 17316 - MR_CLINKB_DEFAULT in step 1 to allow the app to launch outside the context of an encounter.

Information to Send to Way to Health

Way to Health will need the following data points to integrate with your system.

- Endpoints
 - Reverse proxy/instance URLs
- Network Configuration
 - VPN info
- Patient ID and ID Types
 - Communicate Patient Identifier (IIT) and Descriptor (Item 600) mappings with Way to Health so they are correctly identifying patients. The IIT Descriptors (I IIT 600 and 610) must be populated in order for the Patient Identifier Type to work with web services.
- Way to Health needs to know about records or category values in your system. Work with your TS to extract the following types of data and send to Way to Health:
 - In Basket pool IDs for Way to Health to send In Basket messages to.

API-Specific Build Considerations

The following is a list of build considerations for specific web services consumed by Way to Health.

Patient

Data mapping between your Epic system and with Way to Health is important to ensure data is correctly obtained.

For example, you should review the [Patient Resource](#) section of the [FHIR Setup and Support Guide](#) and validate that your gender mapping in the Bridges System Definitions is complete and that it is complete in each environment.

Additionally, be sure to communicate Patient Identifier (IIT) and Descriptor (Item 600 and 610) mappings with Way to Health so they are correctly identifying patients. The IIT Descriptors must be populated in order for the Patient Identifier Type to be returned by the Patient Resource.

AddFlowsheetValue

To use the AddFlowsheetValue web service, Way to Health will need to know a list of Flowsheet IDs in your system. They could either be new Flowsheet rows created for the integration or existing ones. You and the Way to Health team should work together to identify the correct FLO IDs.

Way to Health will also need to know one or multiple Flowsheet Template (FLT) IDs that are used in the FLO build. They will use this to write data back to flowsheet rows in the customer system.

SetSmartDataValues

To use the SetSmartDataValues web service, Way to Health will need to know a list of SmartDataElement Identifiers in your system. They could either be new SmartDataElements created for the integration or existing ones. You and the Penn Medicine team should work together to identify the correct HLXs.

SendMessage

To use the SendMessage web service, Way to Health will need to know which In Basket Message type and which In Basket pools to write In Basket messages to in your system. This message type must correspond to a value in EOW 30 outside of Epic's release range or part of the safe list. The safe list currently includes only value 1-Staff Message. You and the Penn Medicine team should work together to identify the correct category value in EOW 30.

If you decide to create a custom message type for Way to Health, follow the additional instructions below.

Create a new Message Type

To create a new message type, follow instructions in the [Create or Copy Message Types and Message Type Definitions](#) topic.

Add a new message type to the EOW item 30 category list. This message type will be used by the Way to Health - Backend app when calling the SendMessage (2014) web service.

Share this message type with your security team, so that they can configure the app's user with the security to send messages of this type. Refer to the [Determine Which Message Types Users Can Send and Receive](#) for creating a new IB security class for this user that is allowed to send this message type.

Create a new Message Type Definition

To create a new message type, follow instructions in the [Create or Copy Message Types and Message Type Definitions](#) topic.

From the "Basic Functionality" tab:

- In the Message type field, enter your newly created Message Type.
- In the Definition type field, enter Normal.
- In the Allow status change field, enter Yes
- In the Allow reply/forward field, enter Yes.

From the "Reports" tab, enter a report with print group (LPG) 2546: MESSAGE: BODY (HTML) to see the body of the message. Include any other desired print groups.

Create a command button to launch the app

Using the FDI and Activity records you created above, follow the [Create an In Basket Command Button to Launch the Web Application](#) galaxy topic.

- In step 1b, use the record ID for the FDI you created.
- In step 3, use the message type definition you just created.
- In step 6 replace the "Activity Descriptor" used with your activity's descriptor.

Update Epic-wide Settings

To update Epic-wide Settings, follow instructions in the [Define Epic-wide Settings for a Message Type](#) topic.

Add the new Message Type and Message Type Definition to the Message Type Default table in Epic-wide Settings. You can specify a Registry of 1-Staff.

This table is what associates your message type (which Way to Health - Backend will send to the web service) with the message type definition you created.

Observation

LOINC mapping: the Observation FHIR resource pulls data using LOINC code mappings for the "vitals-signs" and "labs" categories. Confirm these are built.

- For vitals, LOINC codes mapped using the External Concept Mapping activity. Each vital flowsheet (FLO) should be mapped to two LOINC codes: 8716-3 - Vital Signs - this is a generic LOINC code that just identifies the FLO as a vital and the specific LOINC code for the vital. I.e. 8867-4 Heart rate for your heart rate FLO.

Encoded Flowsheet IDs: In STU3 and later, it's possible to use the Observation FHIR resource to pull specific flowsheet rows. The Penn Medicine team will need to work with you to get a list of the encoded FLO IDs required by the web service calls. This is environment specific (ie between TST and PRD, you will have different encoded FLO IDs). Work with your Epic TS and use [Generate Encoded Flowsheet IDs](#) to get these IDs.

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 complete testing in Production as well. Testing in Production prior to your go-live date is the best way to prepare to go live with an implementation. Work with Way to Health and your Epic TS to consider possible edge cases and test all necessary workflows.

Testing with Way to Health

- Schedule a meeting with the relevant teams at your organization and Way to Health to test workflows and integration points to ensure the configuration is built appropriately in non-Production and/or Production environments.
- Refer to [Epic's Comms policy](#) when determining what is appropriate to share when testing workflows and integration points with Way to Health.

Training for Way to Health

As all the required Epic build and system configuration outlined in this guide is being completed and you've begun end-to-end testing, make sure to coordinate end user training following the guidelines below:

- Find a provider to promote the use of Way to Health by other end users at your organization.
- Ensure that each potential user of the app, such as clinicians, nurses, and front desk staff, are informed:
 - Where the app is launched from (e.g., activity toolbar, user toolbar, navigator section, etc.)
 - What workflows the app should be used in
 - When in the workflow the app should be launched

Cutover to Production

To prepare to go live with Way to Health, be sure to migrate all relevant Epic application build and system configuration from your non-Production environment to your Production environment.

- EpicCare Ambulatory analyst and TS - Use Data Courier or Content Management to track and migrate the Epic application, user, and security build that you have been using to test the integration.
 - Before moving an FDI record, be sure to add the Production Client ID (and Production Launch URL) from the "Build a Web Integration Record" section.
 - Check that the Epic Browser Allowlist has the required domains in Production, manually add these if not.
 - Check that the Client Records (E0E) are active in Production. Use Record Viewer (enter E0E for the INI) to search for the client by name Way to Health. Verify Item 100 (External ID) is populated with the production client ID: 3aa086b8-6dfb-4143-9100-b8e003ebe2a2 (clinician-facing app) or 7c471b3b-1535-4f40-90ad-b62ffd94a623 (backend app), and check that the most recent contact on the client is set to Active in Item 120 (Status). **If the client record is not in Production the week prior to cutover, work with Way to Health, your Epic TS, and Technical Coordinator to get this delivered.**
- Interconnect admin - Ensure the Interconnect configuration is moved from non-Production to Production.
- Citrix or other Hyperspace platform admin - Ensure the Citrix/Desktop configuration is setup in Production as it was in non-Production environments.
- Way to Health - be sure Way to Health is configured to use the production Interconnect address.
 - Confirm a successful connection to PRD environment
 - This will be done by making read only API calls.
 - Confirm authentication credentials work in TST + PRD environments.
 - Alternatively, receive new credentials for PRD.

Wrap-up

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

- Communicate directly with Way to Health to bring attention to any variance in the software received vs. what was expected/promised.
- Communicate with your application TS to bring attention to any improvements that could be made to the implementation guide.

Ongoing Maintenance

Before any upgrades to a new release of Epic or major updates to Way to Health, 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 Way to Health to resolve the issue.

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

[Auditing API Access to Patient Data](#)

If you need to audit Way to Health API access to patient charts, you can use Patient Audit Trail. See the Auditing Access to Patient Data section of our [FHIR Setup & Support Guide on Galaxy](#) for more information.

Appendix

Web Service Information

Way to Health is scoped for the following web services. Epic recommends that vendors only scope the necessary APIs needed for the app to function, but the scoped APIs are set by Way to Health. If your organization has questions about how the web services are used by Way to Health, reach out to your Way to Health contacts.

These individual web services will be enabled when you configure the above Use Case. For reference, they are included in the table below:

Web Service Name	Web Service Category	Web Service Class
Observation.Create (Vitals) (R4)	FHIR	R4
HL7v2	EDI	HTTP
SendMessage (2014)	Common	Utility
SetSmartDataValues	Clinical	Utility
AddFlowsheetValue	Clinical	Patient
Patient.Search (R4)	FHIR	R4
Patient.Read (R4)	FHIR	R4
Encounter.Search (R4)	FHIR	R4

FHIR Break-The-Glass considerations

Break-the-Glass is a system of security policy checks an organization can place on some patient or encounter records to ensure only the appropriate users have access to the information they contain. For many applications, Break-the-Glass is most commonly enforced via security policy checks that apply to the FHIR or All views. To learn about setting up Break-the-Glass checks for FHIR applications at your organization, see the [FHIR View Setup and Support](#) section in the [Break-the-Glass Setup and Support Guide](#).

7- Day Lookback

Because of how session information is stored for FHIR APIs, in order for Break-The-Glass to work as expected for FHIR calls it will require setting up a [7-day Lookback Period](#). Follow this guide to ensure users don't need to break the glass multiple times for a single workflow using FHIR.

Turbocharger Package Information

The Turbocharger package for Way to Health contains the following records:

Record Name	INI	Description
WAY_TO_HEALTH_ACTIVITY	E2N	Activity record used in the launch. Assumes it's being launched from an encounter
IT_WAY_TO_HEALTH	E2U	Button record used by the launch. Place this in your user workflows.

WAY TO HEALTH WEB APP FDI	FDI	Integration record that contains information about the Way to Health launch.
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Troubleshooting Tips

This section contains troubleshooting tips for common issues that you may run into while setting up and testing the app. Way to Health will add additional detail below as they learn more.

- If you are configuring FHIR in a non-Production environment that does not have an entry in the My Phone Book activity and does not contain PHI, contact your Epic representative and reference SLG 5789680.
 - You should not attempt to enter non-production environments with PHI into the My Phone Book activity.
- If you're using a unique Interconnect instance for Way to Health, different from your default FHIR Interconnect server, you will need to override default URL mappings as described in the [Override Default Mappings for URL Prefixes](#) section of the guide.
- If your organization has not used FHIR for previous integrations, you may need to follow the steps to setup FHIR in the [FHIR Setup and Support Guide](#).
- Verify the "2501-FHIR-Patient Facing" and "2502-FHIR-Provider Facing" URL types have externally accessible URLs, as is described in the [Define Default URL Prefixes in the My Phone Book Activity](#) topic.
- If you want to check FHIR and environment configuration, reach out to your TS and reference SLG 7066222 to run a troubleshooting utility.
- Contact your Way to Health representative to check the Way to Health error log.
- Reach out to Way to Health and your TS for additional assistance.

For errors that occur during a launch to an outside app or when trying to authenticate API calls, there might be issues with OAuth2. Here are some resources that can help investigate:

- Work with your application TS and mention SLG 6803215 to check for errors in the Caché error log and debug global. The Interconnect Administrator menu's OAuth Management utilities are also helpful to see potential issues.
- Work with your ECSAs and Client Systems Web and Service Servers TS to pull the Interconnect TraceViewer logs.
 - On the appropriate instance and file directory for OAuth2, search for messages in the timeframe associated with the launch error.
 - Filter by the Way to Health client ID:
 - Non-PRD client ID (clinician): 3ced6ceb-0741-4cf1-83ba-99f3b34d600a
 - Non-PRD client ID (backend): 7c471b3b-1535-4f40-90ad-b62ffd94a623
 - PRD client ID (clinician): 3aa086b8-6dfb-4143-9100-b8e003ebe2a2
 - PRD client ID (backend): 58eae39-8788-426f-ab1e-aedcd2676512

- For each launch, Way to Health should call back to Interconnect twice, with the following request names:
 - OAuth2/Authorize – launch
 - OAuth2/Token – Code Grant
- For both OAuth2-related requests, save the full details of the log (Events/Message Details, Request, and Response) to a .txt file and upload to Sherlock.
- Review the requests and response with your Client Systems Web & Service Servers TS for indicators of errors.

Change History

Date	Description
7/28/2023	Added backend app capabilities

DRAFT

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