CAREAPPROVE™

Move Health Data Forward Challenge
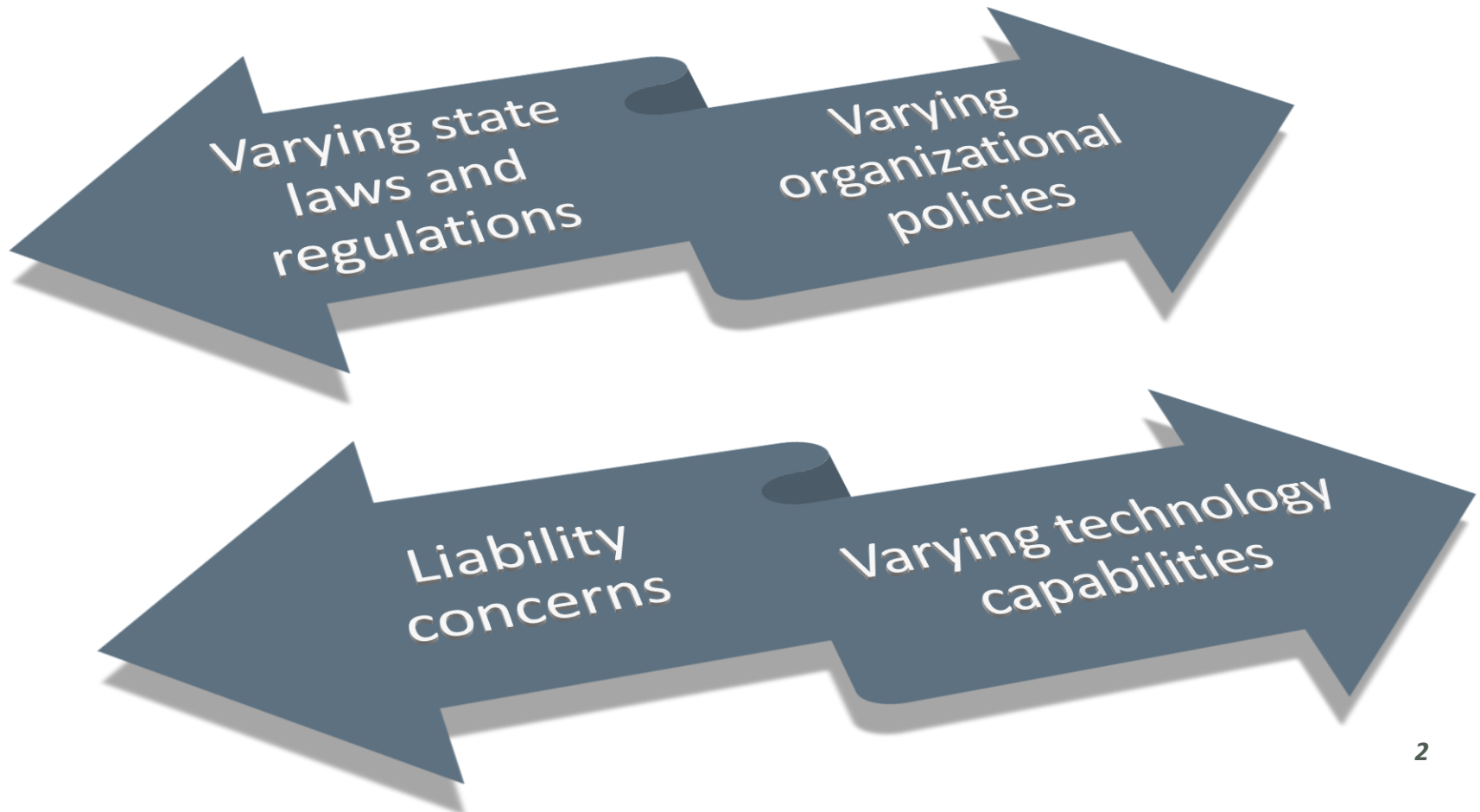
September 8, 2016

An Approach for Smartphone-Enabled Consumer Mediated Health Information Exchange

CEDARBRIDGE GROUP

Stella Technology
Exchange > Coordinate > Collaborate

The Problem to Solve

The path to interoperable information exchange of specially-protected health information (SPI) is fraught with challenges.

Varying state laws and regulations

Varying organizational policies

Liability concerns

Varying technology capabilities

Today's Patient Experience

Alex

Manages type 2 diabetes under supervision of a PCP

Referred to an endocrinologist across town

Undergoing treatment for generalized anxiety disorder

Alex's PCP needs to share her electronic health records with the endocrinologist

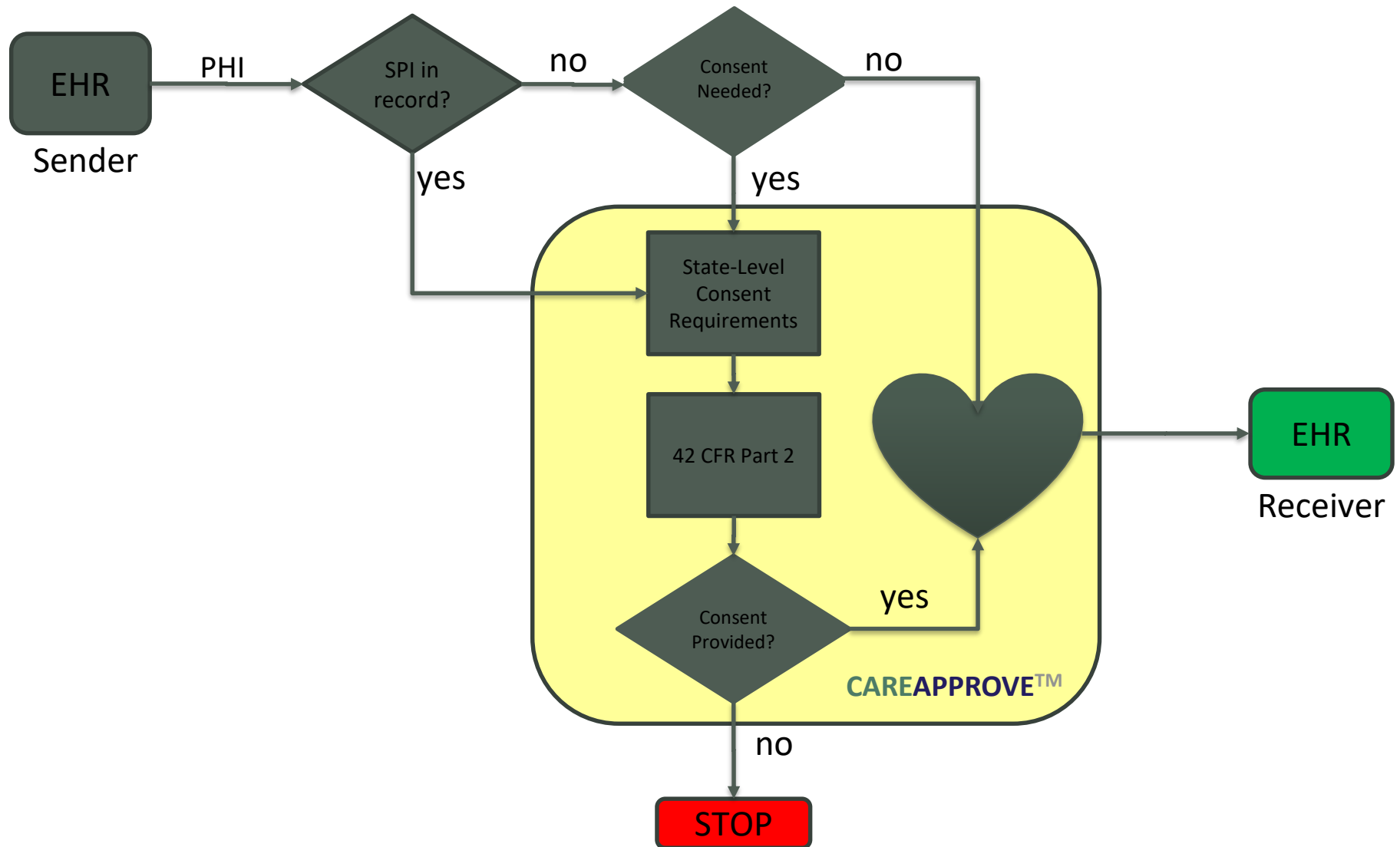With SPI in Alex's electronic record, the HIE serving Alex's community won't accept it

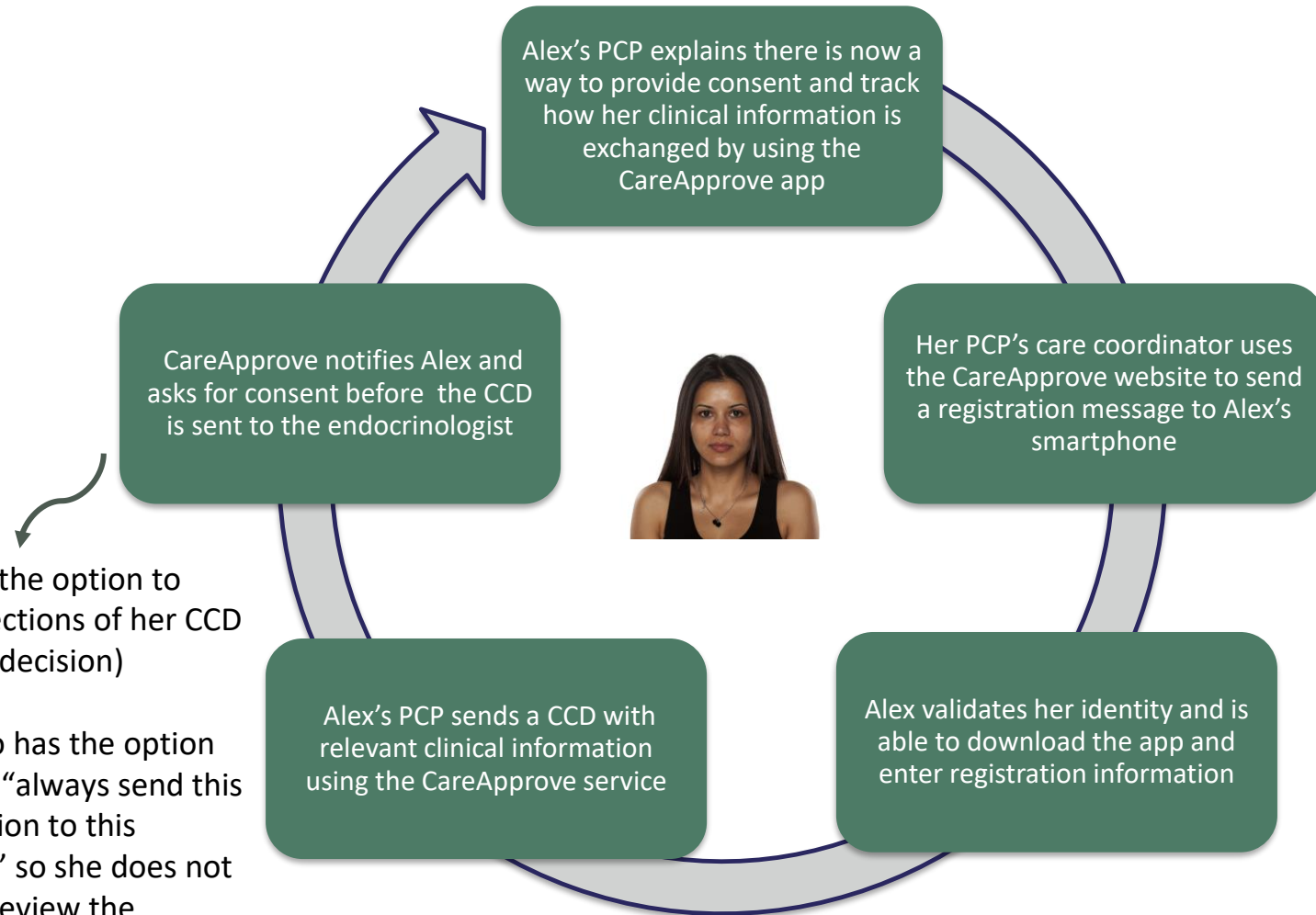Alex must sign a Release of Information and her PCP must print and fax, mail, or courier the record with the referral

CAREAPPROVE™ Solution

EHR

Sender

PHI

SPI in record? — no → Consent Needed? — no

yes

yes

State-Level Consent Requirements

42 CFR Part 2

Consent Provided? — yes

no

STOP

EHR

Receiver

CAREAPPROVE™

CAREAPPROVE™ Use Case and Workflow

Alex's PCP explains there is now a way to provide consent and track how her clinical information is exchanged by using the CareApprove app

Her PCP's care coordinator uses the CareApprove website to send a registration message to Alex's smartphone

CareApprove notifies Alex and asks for consent before the CCD is sent to the endocrinologist

Alex validates her identity and is able to download the app and enter registration information
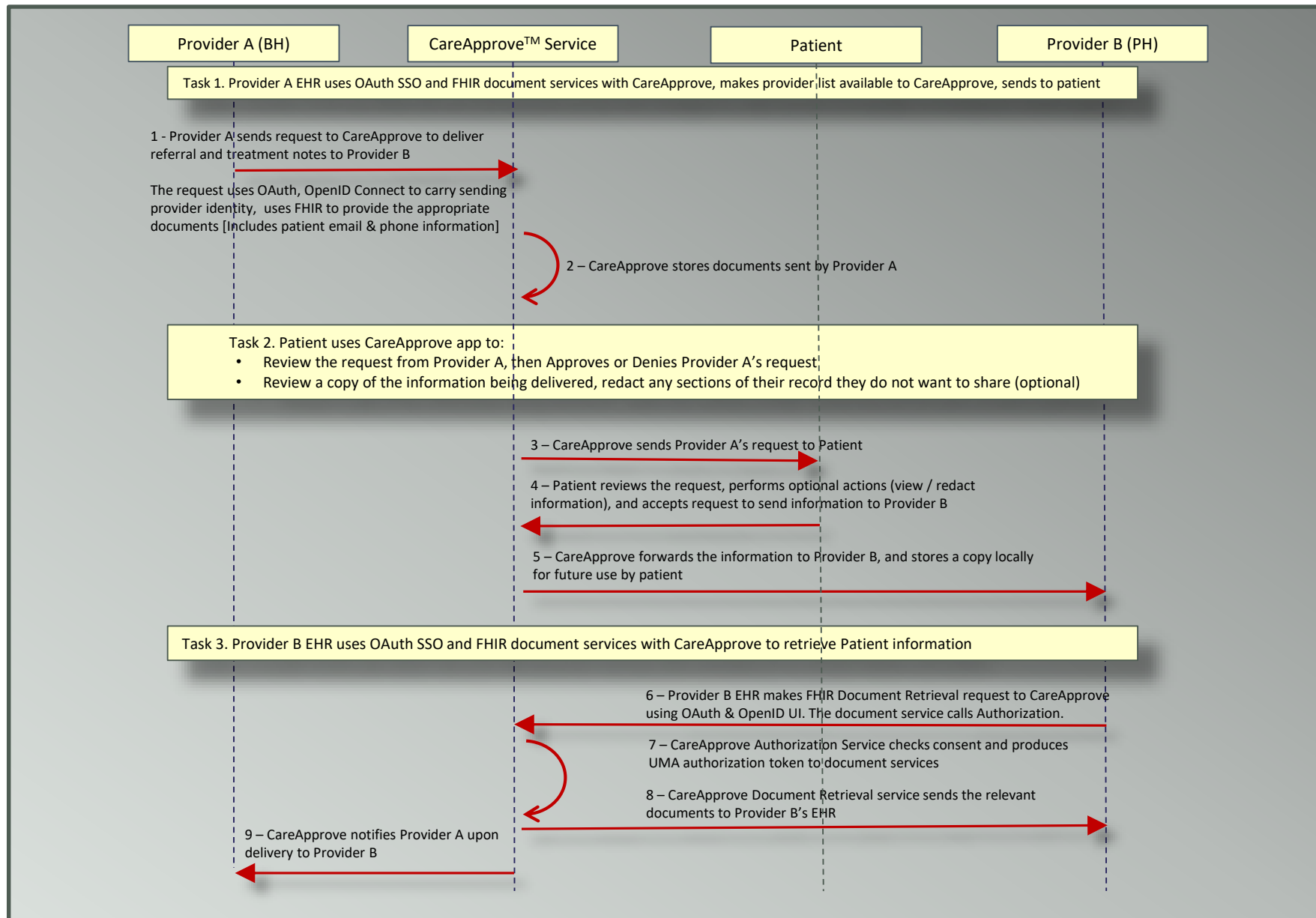
Alex's PCP sends a CCD with relevant clinical information using the CareApprove service
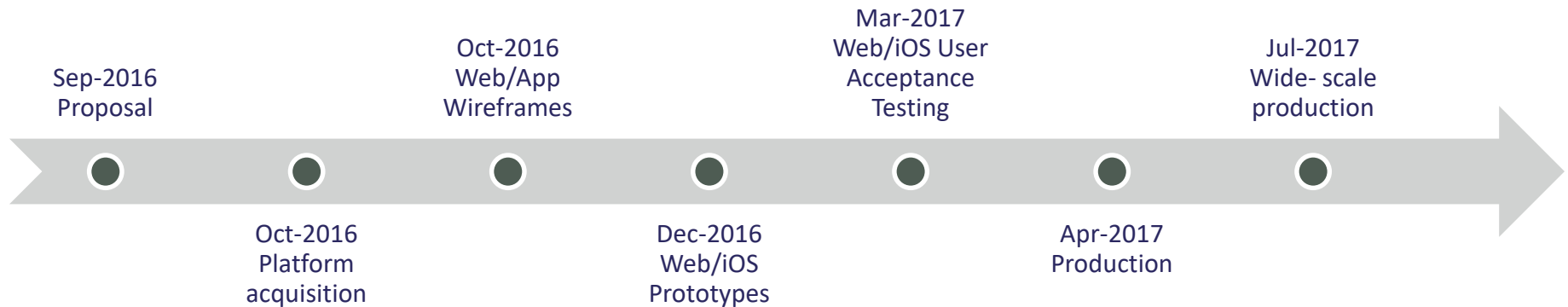
- Alex has the option to redact sections of her CCD (a policy decision)

- Alex also has the option to select "always send this information to this provider" so she does not have to review the information each time.

CAREAPPROVE™ Data Flow

Provider A (BH)	CareApprove™ Service	Patient	Provider B (PH)

Task 1. Provider A EHR uses OAuth SSO and FHIR document services with CareApprove, makes provider list available to CareApprove, sends to patient

1 - Provider A sends request to CareApprove to deliver referral and treatment notes to Provider B

The request uses OAuth, OpenID Connect to carry sending provider identity, uses FHIR to provide the appropriate documents [Includes patient email & phone information]

2 – CareApprove stores documents sent by Provider A

Task 2. Patient uses CareApprove app to:
- **Review the request from Provider A, then Approves or Denies Provider A's request**
- **Review a copy of the information being delivered, redact any sections of their record they do not want to share (optional)**

3 – CareApprove sends Provider A's request to Patient

4 – Patient reviews the request, performs optional actions (view / redact information), and accepts request to send information to Provider B

5 – CareApprove forwards the information to Provider B, and stores a copy locally for future use by patient

Task 3. Provider B EHR uses OAuth SSO and FHIR document services with CareApprove to retrieve Patient information

6 – Provider B EHR makes FHIR Document Retrieval request to CareApprove using OAuth & OpenID UI. The document service calls Authorization.

7 – CareApprove Authorization Service checks consent and produces UMA authorization token to document services

8 – CareApprove Document Retrieval service sends the relevant documents to Provider B's EHR

9 – CareApprove notifies Provider A upon delivery to Provider B

Deliverables and Timeline

Sep-2016
Proposal

Oct-2016
Platform
acquisition

Oct-2016
Web/App
Wireframes

Dec-2016
Web/iOS
Prototypes

Mar-2017
Web/iOS User
Acceptance
Testing

Apr-2017
Production

Jul-2017
Wide- scale
production

Deliverables:

- Cloud platform for hosting web services, databases and all back-end processing

- Wireframes for Web & mobile services to illustrate how components will be rendered

- Completed prototypes with limited functionality will be available in test platform for both the web services and iOS mobile device

- Production UAT will incorporate system-wide testing with provider-to-provider using patient consent

- System will be operational for full production use by a limited set of users

- Full scale production will allow sensitive data to be exchanged nationwide

Competitive Advantage / Value Proposition

Patients

- Enables real-time control of health information sharing
- Improves care coordination and condition management
- Reduces risk of medication interaction

Providers

- Patient data is made available at the point of care via electronic exchange
- Data exchange is compliant with HIPAA, 42 CFR Part 2, and state-specific regulations
- Reduces administrative overhead

Payers/ACOs

- Improves patient safety and healthcare outcomes
- Reduces total cost of care

Team Experience and Capabilities

CEDARBRIDGE GROUP

Stella Technology
Exchange > Coordinate > Collaborate

Amy Sherwood
Director of Project Management

Salim Kizaraly
SVP Business Development and Founder

Jim Younkin
Chief Technology Officer

Lin Wan
Chief Technology Officer

Carol Robinson
Principal

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