Data Exchange Framework

Technical Advisory Committee (TAC) Meeting #3B: Event Notification Architecture

Thursday, August 21, 2025

12:00 PM – 1:00 PM PT

Members are strongly encouraged to **enable their video** to foster increased interaction and discussion.

CalHHS

The Vision for Data Exchange in California

Every Californian, no matter where they live, should be able to walk into a doctor's office, a county social services agency, or an emergency room and be assured that their health and social services providers can access the information they need to provide safe, effective, whole-person care—while keeping their data private and secure.

California's Data Exchange Framework (DxF) will help achieve this vision and improve care for all Californians by enabling statewide, secure data exchange between health and social services providers.

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Agenda

12:00 PM
Welcome & Roll Call

12:05 PM
What We Heard Last Meeting

12:15 PM
Review of Key Terms in this Series

12:20 PM
Discussion of Potential Event Notification Architectures

12:50 PM
Public Comment

12:55 PM
Next Steps and Closing Remarks

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Public Comment Opportunities

Public comment will be taken during the meeting at the approximate time listed on the agenda and limited to the total amount of time allocated for public comment.

Members of the public may also use the Zoom's Q&A feature to ask questions or make comments during the meeting, or can email their questions or comments to DxF@chhs.ca.gov.

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Event Notification Architecture TAC Members

Members are strongly encouraged to **enable their video** to foster increased interaction and discussion.

Name	Organization
Rim Cothren (Chair)	Data Exchange Framework
Cindy Bero	Manatt Health Strategies
Danielle Friend	Electronic Health Record Association (EHRA)
David McCann	United Ways of California 211 DXF Collaborative
Demetrio Cardenas	Via Care
Dr. Brian Thomas	Alameda County
Eric Jahn	Bitfocus
Eric Nielson	California Welfare Director's Association (CWDA)
Gregg Smith McCurdy	Hill Physicians Medical Group
Irene Lintag Alvarez	Aliados Health
Joe Sullivan	Emergency Service Medical Authority (EMSA)
John Roszkowiak	CenCal Health

| Name	Organization
Julie Silas	Homebase
Ken Riomales	California Mental Health Services Authority (CalMHSA)
Mani Nair	Blue Shield of California
Marta Galan	California Department of Social Services (CDSS)
Michael Marchant	Sutter Health
Ray Duncan	Cedars-Sinai Health System
Robin Roberts	Point Click Care
Tamara Hennessy-Burt	California Department of Public Health (CDPH)
Tim Polsinelli	Manifest Medex
Uma Chandavarkar, MD, MHA	California Department of Healthcare Services (DHCS)
Vishaun Lekraj	Kaiser Permanente

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Event Notification Architecture TAC Series Objective

The objective of this meeting series is to **develop recommendations for an architecture for statewide event notification under the DxF.**

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# What We Heard Last Meeting

Centralized Model

- A centralized model is likely **more cost-effective** and operationally simple.

- A centralized model offers **more potential for complete geographic coverage** and uniformity.

- Centralization **may stifle innovation** and limit flexibility for local experimentation.

- A centralized service becomes a **single point of failure** and may struggle to keep up with demand.

- **Roster management** for a centralized service could be **complex and burdensome**.

- A fully centralized model may be akin to "**boiling the ocean**" and may not be feasible for California.

- A centralized service might need to be operated by a **government body to ensure trust and compliance**.

- **A central approach organized around domains** could offer a more pragmatic, hybrid approach.

Sources

Node

Recipients
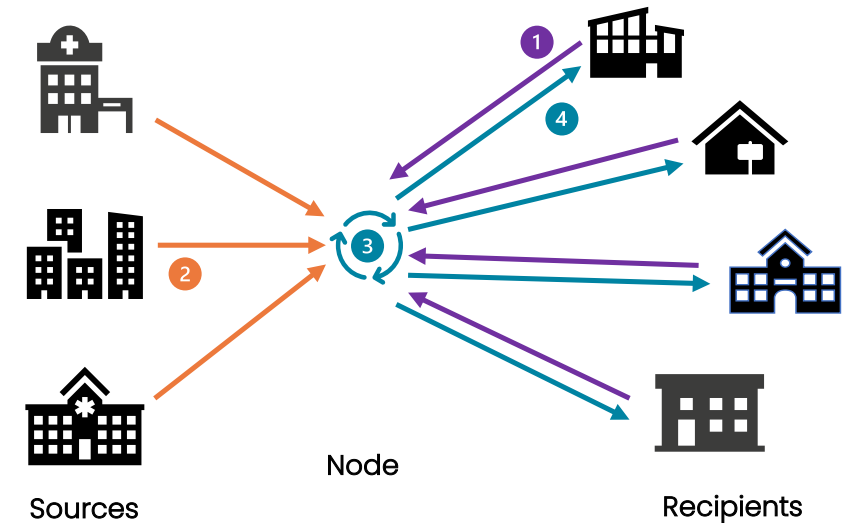
What We Heard Last Meeting

Decentralized Model

- A decentralized model **allows for greater innovation**, especially when tailored to local needs such as county-level initiatives.

- A decentralized model **avoids a single point of failure**, which can improve system reliability.

- A decentralized approach imposes **significant administrative, financial, and operational burden** on all parties. Sources and recipients may not have the resources or technical ability to manage the numerous connections required.

- **Person-matching will be inconsistent** across entities as it is done in multiple places.

Sources

Recipients
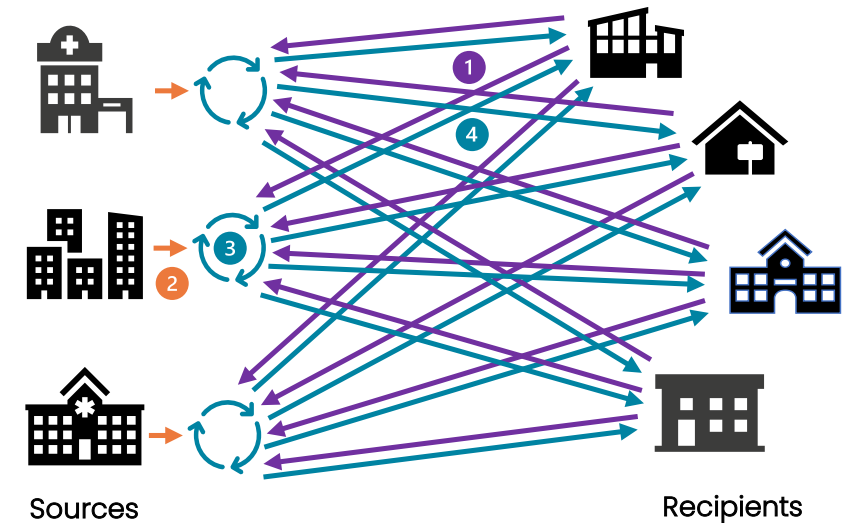
For <u>Both</u> Centralized and Decentralized Models

- Rosters must accurately **reflect relationships between individuals and organizations.**

- **Rosters must be kept up-to-date** to avoid privacy risks.

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Key Terms in this Series

Term	Description
Event	A significant change in an individual's status—currently defined as an Admission or Discharge from a Hospital, Emergency Department, or Skilled Nursing Facility.
Event Service	The application or technology responsible for receiving Events from Sources and forwarding the Event to the appropriate Notification Service.
Node	An entity or technology that receives Events from Sources and/or sends Notifications to Recipients.
Notification	Communication of an Event sent to a Recipient for Individuals requested by the Recipient.
Notification Service	The application or technology responsible for communicating Events to Notification Recipients that have made a Request for Notifications.
Person Matching	The process by which an Event is matched to a Request for Notifications, such as a roster, to identify which Recipient(s) should receive Notifications.
Recipient	A DxF Participant who wishes to receive timely Event Notifications associated with the Individuals they serve.
Request for Notifications	A request submitted by a Recipient to a Notification Service requesting Notifications, such as a roster of individuals.
Source	The DxF Participant at which an Event occurs and who initiates the notification process - currently a Hospital, Emergency Department, or Skilled Nursing Facility.

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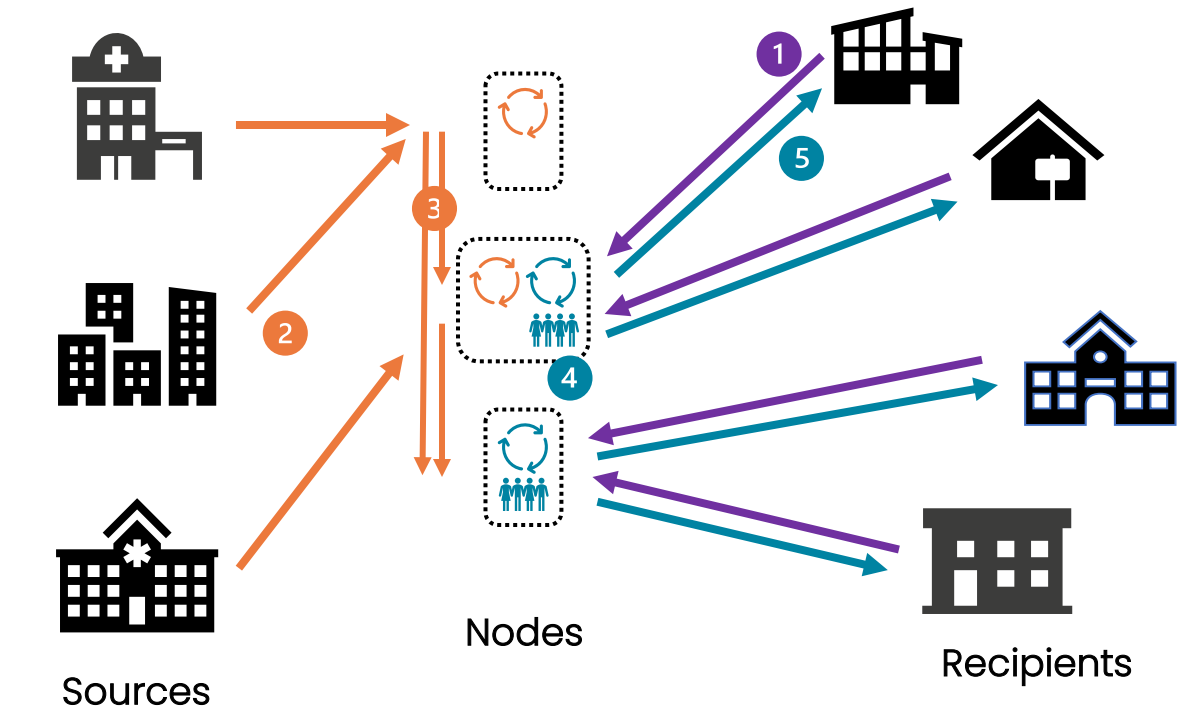
Multiple Nodes with Shared Rosters
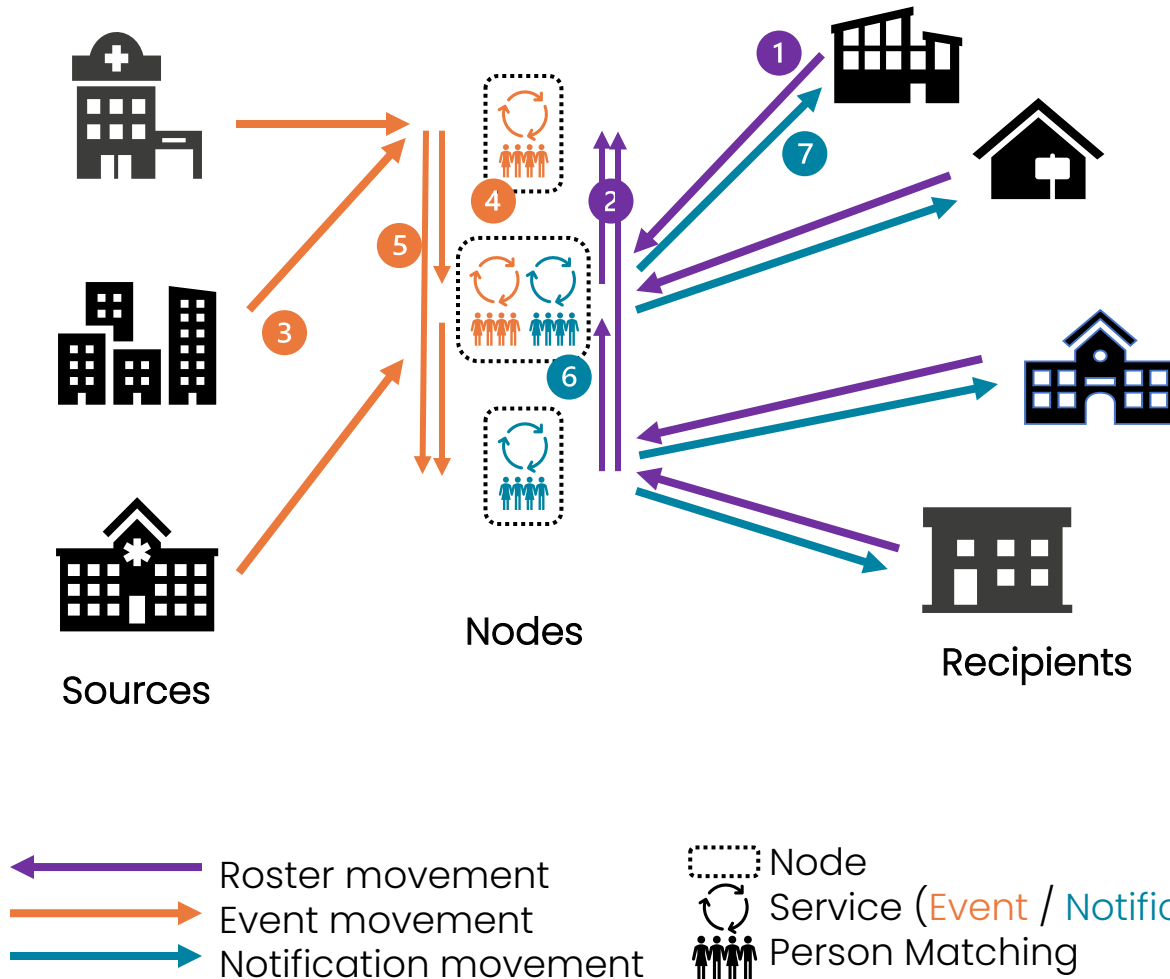
1. Recipients send rosters to a Notification Service; rosters may be updated from time to time
2. Each Notification Service shares the rosters it receives with all Event Services
3. Sources send Events to an Event Service
4. Event Services matches each Event to the individuals on rosters
5. Event Services sends the Event to the Notification Service(s) that shared the roster with the matched individual
6. Notification Services matches the shared Event to individuals on their roster
7. Notification Services sends a Notification to the Recipient that submitted the roster with the matched individual

Sources

Nodes

Recipients

Roster movement
Event movement
Notification movement

Node
Service (Event / Notification)
Person Matching

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- What are the strengths and weaknesses of this model?
- Who is most impacted if there is a poor performer?
- Are there privacy concerns with this approach?

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Multiple Nodes with Shared Events
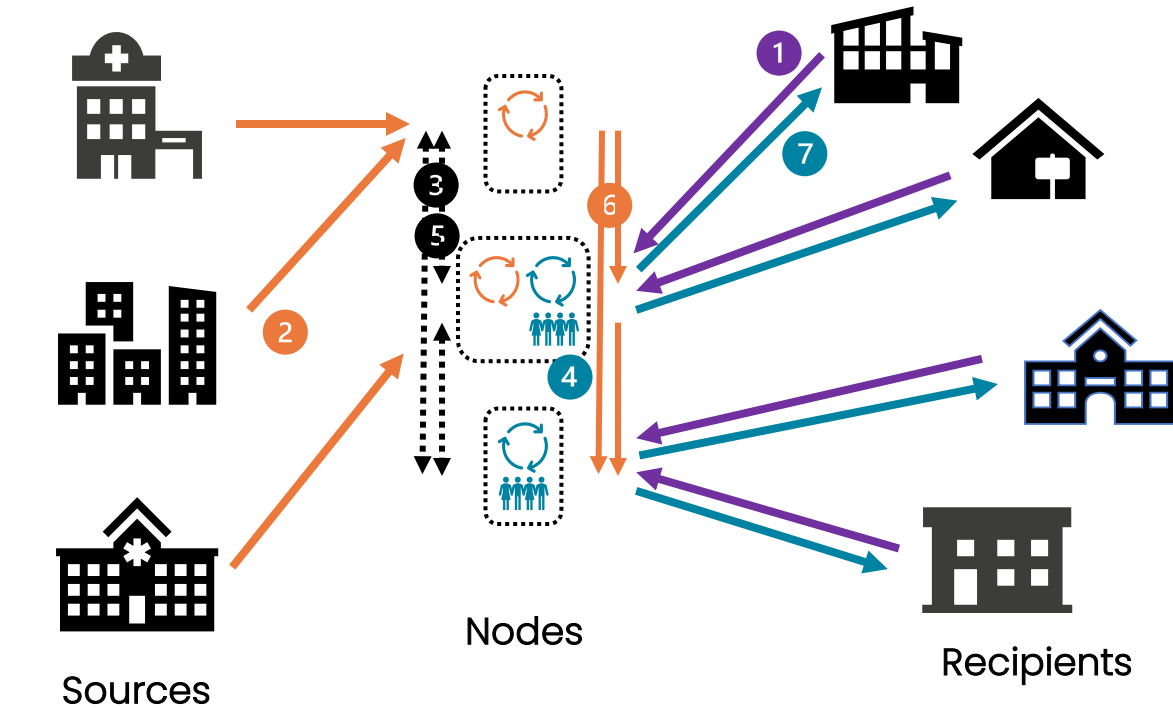

Sources

Nodes

Recipients

1. Recipients send rosters to a Notification Service; the roster may be updated from time to time
2. Sources send Events to an Event Service
3. Event Services send the Events received to all Notification Services
4. Notification Services match each Event to individuals on their rosters, destroying Events that fail to match
5. Notification Services send a Notification to the Recipients submitting rosters with matched individuals

Roster movement
Event movement
Notification movement

Node
Service (Event / Notification)
Person Matching

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- What are the strengths and weaknesses of this model?
- Who is most impacted if there is a poor performer?
- Are there privacy concerns with this approach?

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Multiple Nodes with Patient APIs

Sources

Nodes

Recipients

1. Recipients send rosters to a Notification Service; the roster may be updated from time to time
2. Sources send Events to an Event Service
3. Event Services send person-matching queries for Events it receives to all Notification Services
4. Notification Services match queries to individuals on Rosters
5. Notification Services send a "match" response for individuals on a roster
6. Event Services return Events to all Notification Services reporting a match
7. Notification Services send a Notification to the Recipients submitting rosters with matched individuals

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- What are the strengths and weaknesses of this model?
- Who is most impacted if there is a poor performer?
- Are there privacy concerns with this approach?

Roster movement
Event movement
Notification movement

Node
Service (Event / Notification)
Person Matching
Query API

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Public Comment

Next Steps

The DxF Team will:
- Post meeting materials and recording to the DxF webpage.
- Share a post-meeting poll with Members.
- Share pre-read materials for next TAC meeting with members.

Members will:
- Complete the **post-meeting poll** to rank the models discussed today and at our last meeting, noting any alternatives not discussed. **(Poll response due by 5 PM PT on Wednesday, August 27, 2025)**.
- Be prepared to discuss specific recommendations on DxF event notification architectures at the next meeting.

Upcoming Meetings

Topic	Potential Topic	Date
Meeting #3C	Sustainability	Thursday, September 4, 2025, 12:00–1:00 PM PT
Meeting #3D	TBD	Thursday, September 18, 2025, 12:00–1:00 PM PT
Meeting #3E	*If needed*	Friday, October 3, 2025, 12:00–1:00 PM PT

NOTE: Meeting #3E has tentatively been rescheduled to October 3, 2025 to accommodate the Yom Kippur holiday. Whether the meeting will be needed is still to be determined.

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Appendix

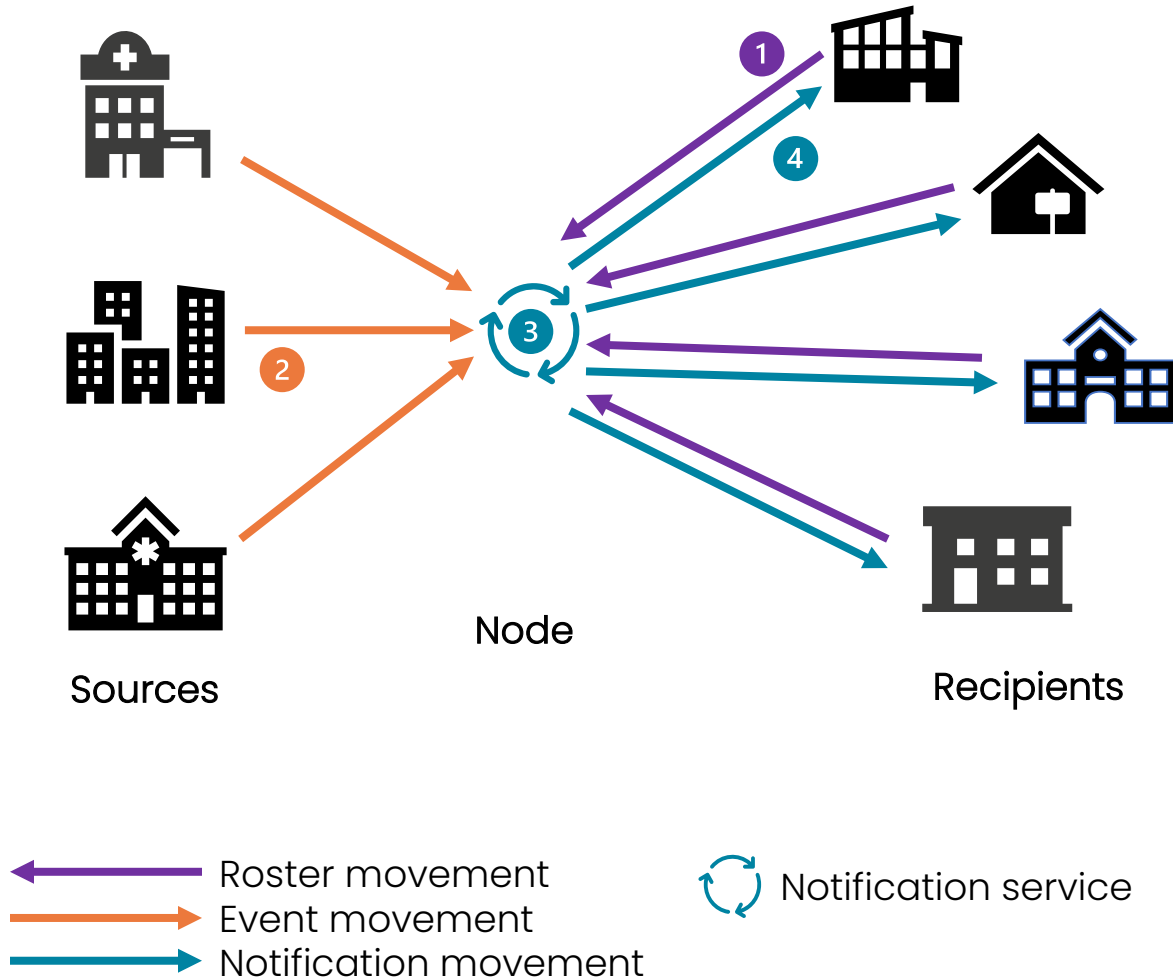# One Extreme: Fully Decentralized Services

Sources
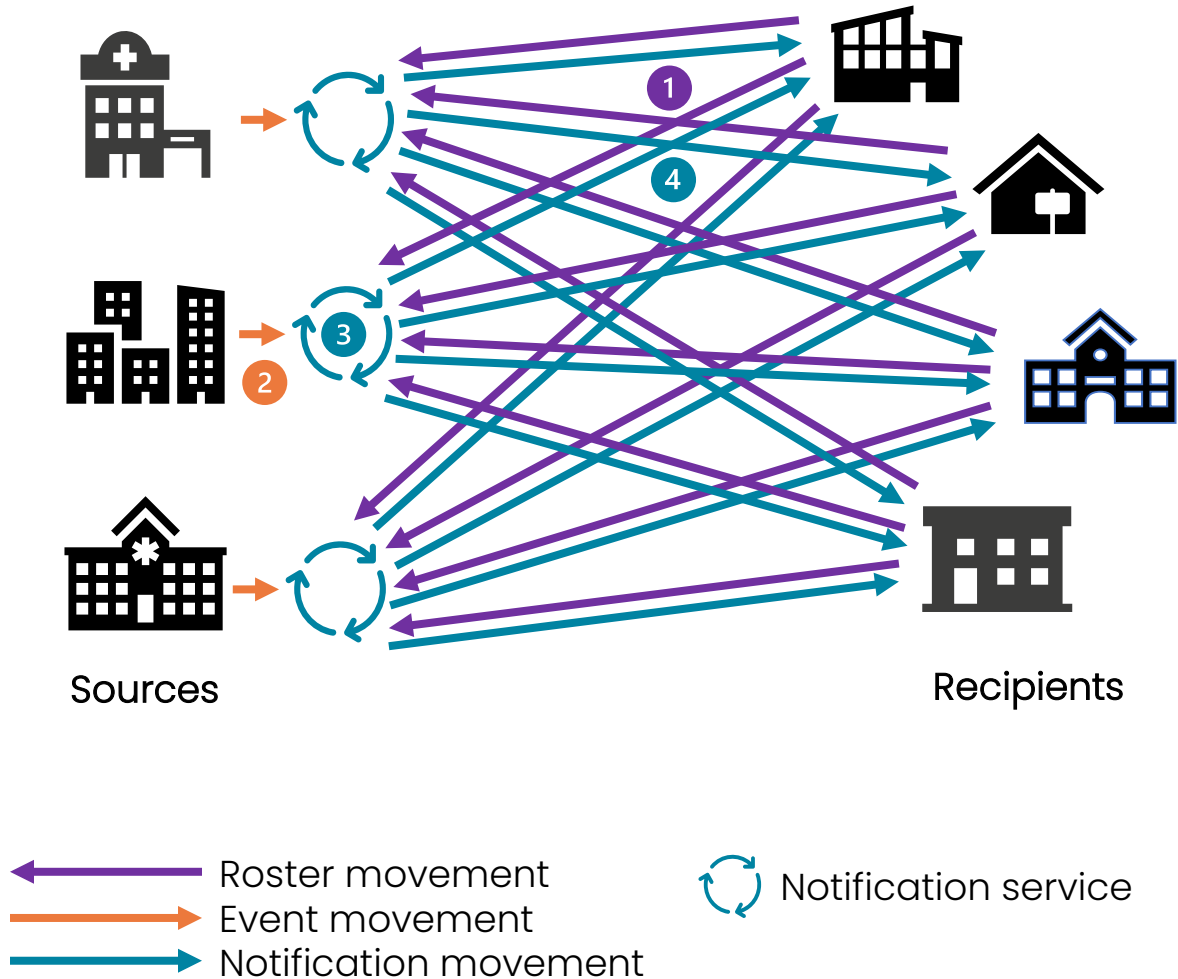
Recipients

1. Recipients send rosters to every Source; the rosters may be updated from time to time
2. Sources generate Events
3. Source matches the Event to individuals on the rosters received from all Recipients
4. Source sends a Notification to the Recipients who submitted a roster with the matched individual

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- What are the strengths and weaknesses of this model?
- Who is most impacted if there is a poor performer?
- Are there privacy concerns with this approach?

Roster movement
Event movement
Notification movement

Notification service

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Other Extreme: Fully Centralized Services

1. Recipients send rosters to the centralized service; rosters may be updated from time to time
2. Sources send Events to the centralized service
3. The centralized service matches the Event to individuals on rosters
4. The centralized service sends a Notification to the Recipients submitting rosters with matched individuals

Node

Sources

Recipients

Roster movement
Event movement
Notification movement

Notification service

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- What are the strengths and weaknesses of this model?
- Who is most impacted if there is a poor performer?
- Are there privacy concerns with this approach?

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