



# LEADERSHIP DEVELOPMENT THROUGH GRAPH DATABASES

Amity Foster & Natasha Ladhani



Data x Power

# ABOUT US

- Natasha Ladhani
  - Data Manager at Faith in Action
  - she/her
- Amity Foster
  - Data Manager at ISAIAH
  - she/her



# AGENDA

A walk through of our project from it's inception to our proposed solution for our organizations and the Progressive Movement

01

SCOPE OF  
ISSUE

03

PROPOSED  
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05

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02

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06

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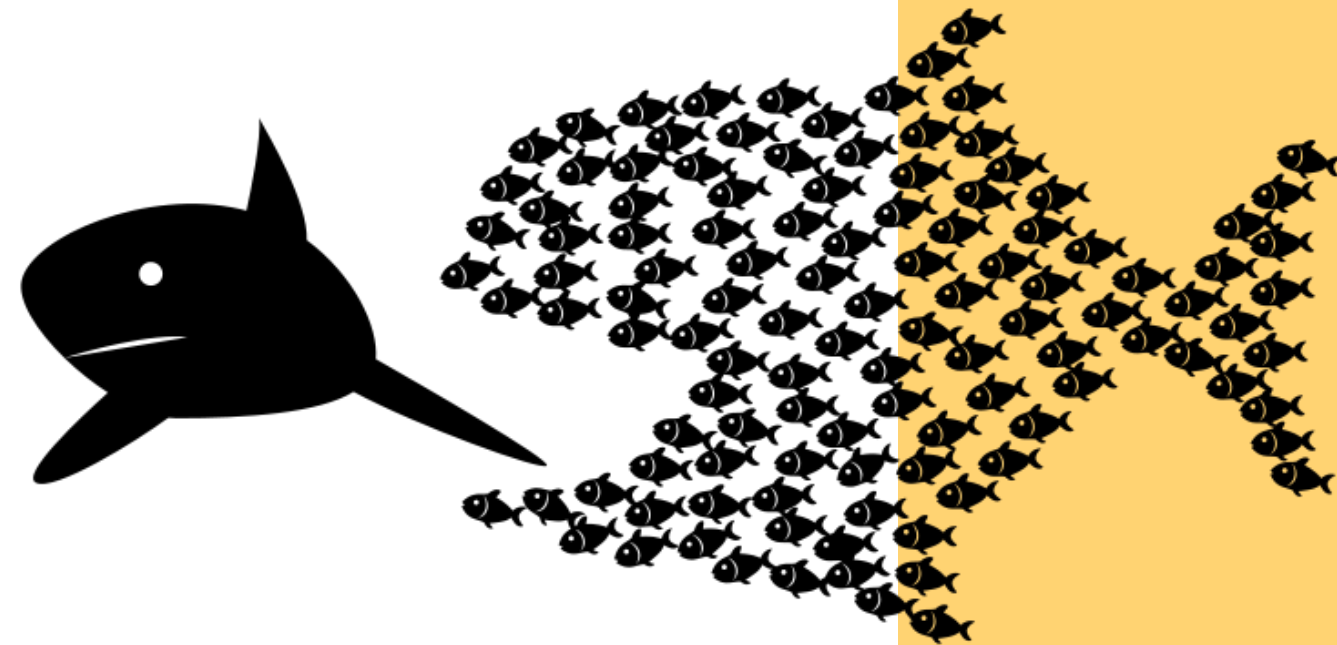
# *Scope* **OF THE PROJECT**

How do we know a leader's network? Who are their followers?

How do we visualize leadership development?



## **ORGANIZE!**



# DEFINITIONS

- Superleader: an individual member who's on a path; has an organizer, identifies as a public leader with ISAIAH. A Superleader is building a base of their own.
- Leader: an individual member who is involved with ISAIAH; shows up, identifies as a member of ISAIAH, or is learning more about the organization.
- Power: ability to make change





**Me trying to explain my  
organizing network**

## WE RESEARCHED:

- EveryAction
- Mobilize
- Action Network
- Google sheets
- Building something completely new

## OUR PRIORITIES:

- Integrated with existing systems
- Ability to scale up
- Leaders feel represented in the process

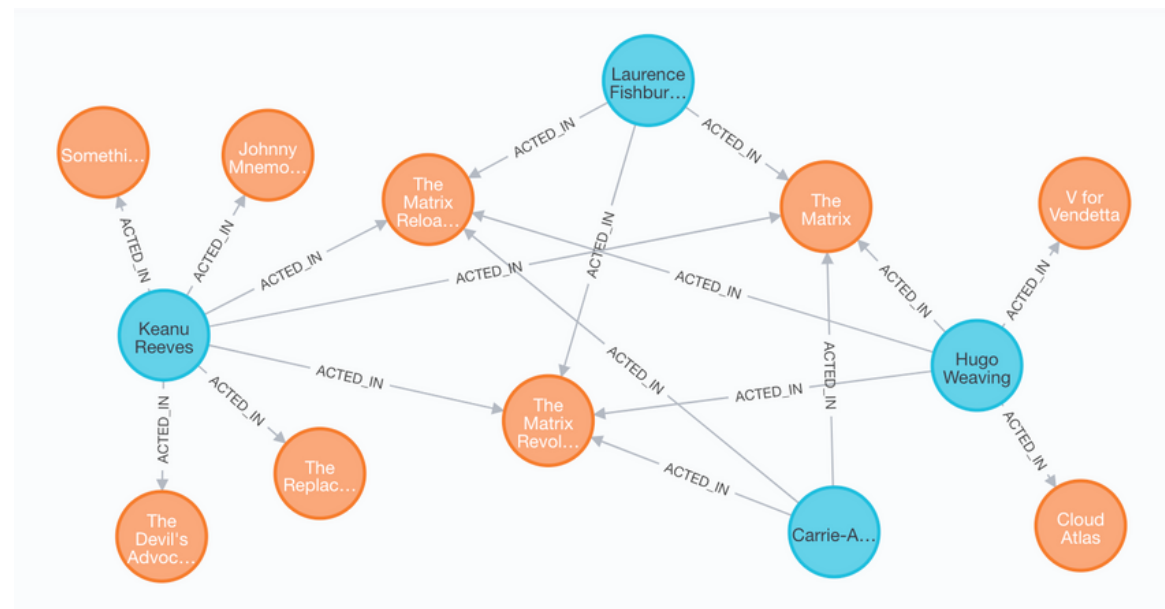
*Graph Databases*

**THE TRUE "RELATIONAL" DATABASE**

First introduced to us by WorkIt

# Advantages

## OF A GRAPH DATABASE



### Structure

Built based on relationship between nodes. Nodes aren't strictly person to person or person to organization, but person to event to person, and the connecting lines are also the relationships and the weight of them. RDBMS operates differently.

### Format

Displays data as a network of various nodes and relationships with unique and categorical property values

### Basis

Using the platform of Neo4j and Cypher language





*Advantages*

# OF EVERY ACTION



## **Familiarity**

Organizers & leaders are familiar with the format of EveryAction; and how ISAIAH uses it. We already have a number of 'workarounds' with EA, and so the additional work required is easier to implement.



## **Former Use**

ISAIAH has been using the tool for a number of years and already has a relationship with the vendor



## **Data Pipeline**

There is an existing pipeline of this data on the back end to Civis where it can be exported in raw form



# PROPOSED SOLUTION

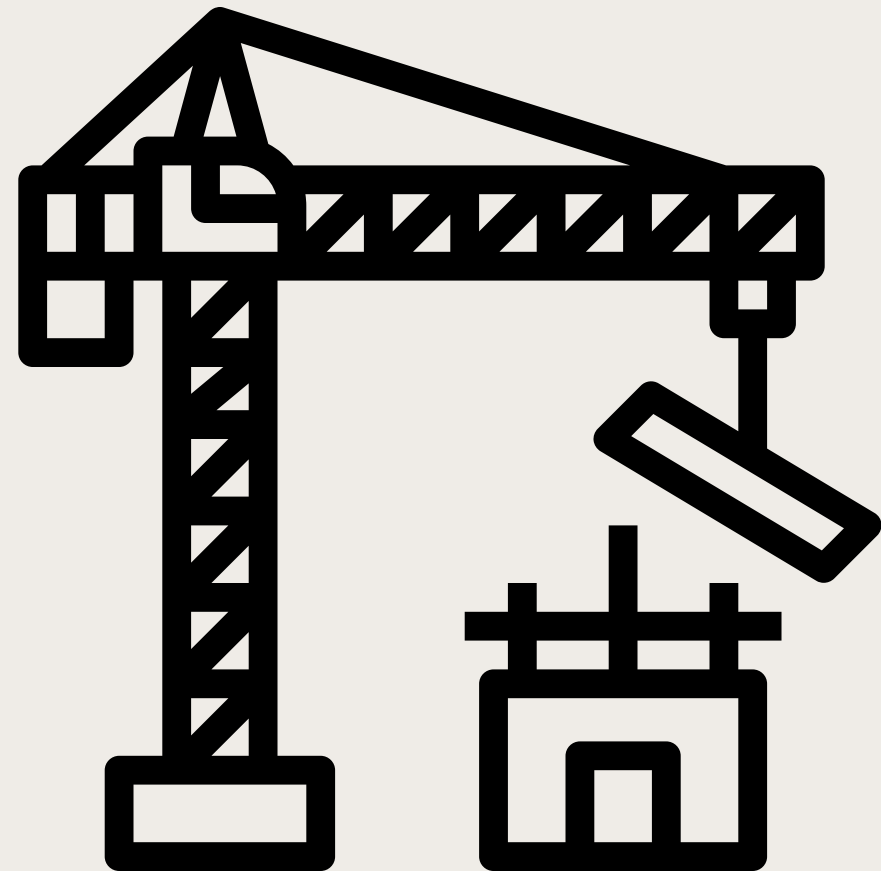
- Use Supporter Groups in EveryAction
- Collect a list of Organizers and the leaders they invited to events
- Load this data into a graph database

This solution can be built on top of any existing CRM - not just EveryAction

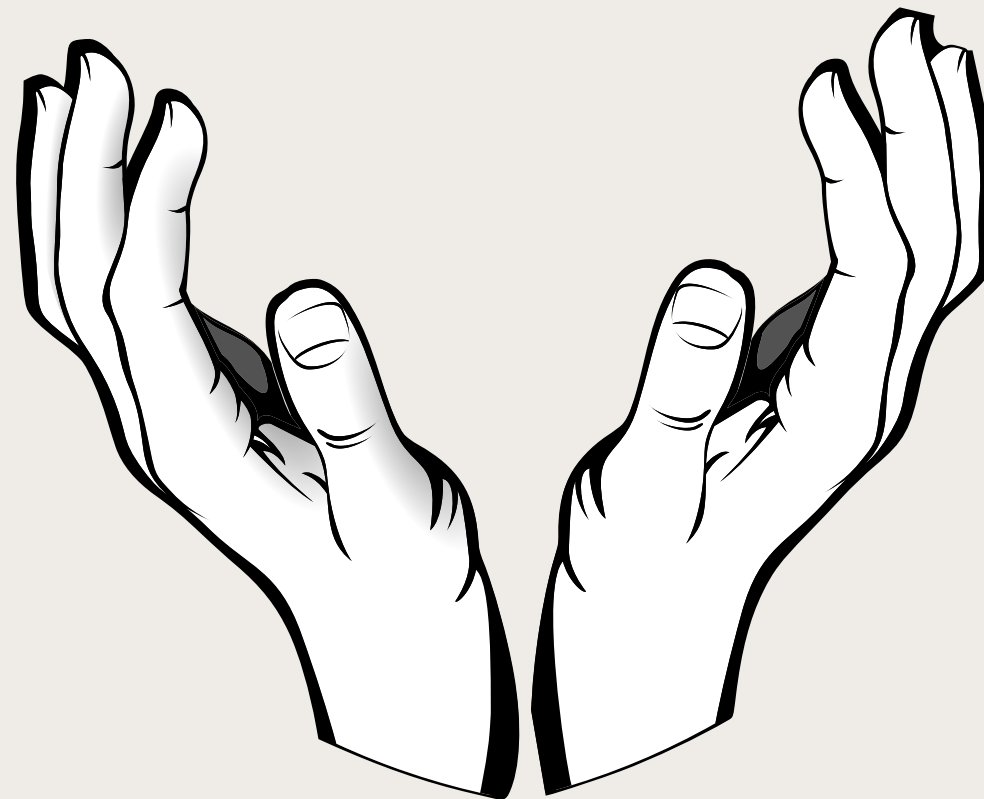


# CASE STUDY

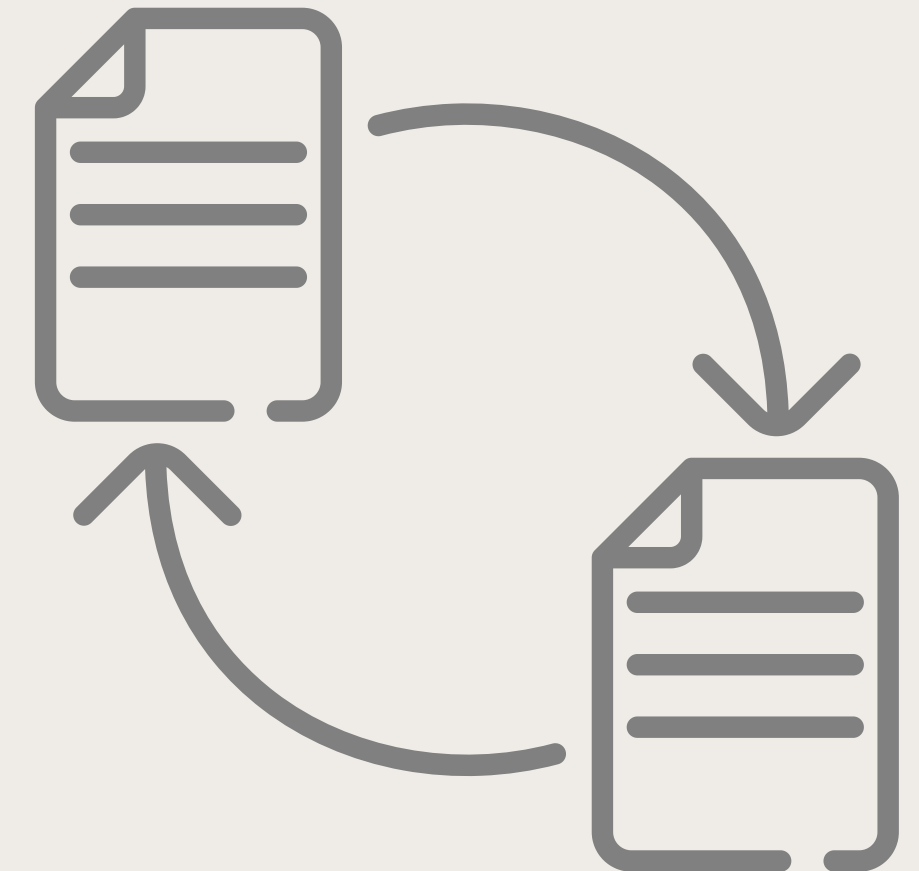
We tested out this proposed solution with ISAIAH data from the Fall of 2022



Build Systems



Collect Data



Transfer Data



# BUILDING A GRAPH DATABASE

ACHIEVED A GRAPH  
DATA SCIENCE  
CERTIFICATION  
FROM NEO4J



## Learning Cypher

This is the query language used by Neo4j to create and manipulate data within the graph database


## Creating a graph data model

Determining which nodes and relationships we would use in our graph database



# SETTING UP THE FRONT END

LEARNED SQL  
THROUGH RE:  
POWER COURSE TO  
FIND DATA IN CIVIS



## **Creating supporter groups**

Each organizer was given their own supporter group so leaders can self select who invited them to an event

## **Training organizers and leaders**

Using a dropdown menu allows for cleaner data collection; and integrates into an already existing data system: using event registration forms for the organizing work

# THE FRONT END

Creating an event

+

h.com/EventWizardNew.aspx?EventTypeID=EID60EB4N&FromPage=%2Fdefault.aspx

oter RegistrationMy Voters

Search for a contact...

Am  
ISA

Event Details

Name\*

DXP Training

Short Name\*

DXPT

Campaign

Date/Time From \*

12/17/2022

1:00pm

Date/Time To \*

12/17/2022

3:00pm

(2 hours)

Time Zone

(UTC-06:00) Central Time (US & Canada)

Internal Description

Describe your event to internal users.

☐ Make this event available on OpenVPB.

Online Signup Form

ollect signups for this event online by publishing an event form in Online Actions. The form will be published based on the specified mplate upon clicking Finish. If this event repeats, one form per occurrence will be published.

Publish Online Signup Form(s)

☒

Event Signup Form Template

Individual Supporter Group Sign...

Public-Facing Name ? \*

Public-Facing Description ?

Default Template

Individual Supporter Group Signup

appear on published event

Next

Finish

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# THE FRONT END

Self selecting a supporter  
group

## DXP Training

### LEADER MEETING

**Saturday, December 17, 2022 1:00 PM - 3:00 PM CT**

Take future action with a single click.  
[Log in](#) or [Sign up](#) for *FastAction*



### Contact Information

First Name

Amity

Last Name

Foster

Street Address (Optional)

Postal Code

City

State/Province

- State -

Email

email@email.com

Home Phone



☒ Remember me so that I can use *FastAction* next time.

**Who invited you to join? (Optional)**

**Tip:** Search for the person's name here.

- Select -

|

Carol Dallman

Chris Schwebel

Christine Danielson

Christine Fenske

Claudia Gordon

# THE BACK END

Looking up a leader's  
network based on the  
supporter group

EveryAction

Voter Registration

My Voters

➤ Relationships

★

➤ Scores

★

➤ Self-Reported Demographics

★

➤ Social Media

★

➤ Source File Sex

★

➤ Stories

★

▼ Supporter Groups

★

Supporter Groups

ginn

Ginny DeLuca

➤ Suppressions

★

➤ Survey Questions

★

➤ Tags

★

➤ Targeted Email Summaries

★

➤ Targeted Emails

★

◀ Step 1: New

Suppressions

exclude De

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Running this

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# THE BACK END

Using supporter groups  
allows an org to pull up the  
members of a leader's team

re - Ginny X

etsmartvan.com/SupporterGroupDetails.aspx?SupporterGroupID=EIDDF9H

onVoter RegistrationMy Voters65Search for a contact...

Supporter Group Details

Supporter Group Name\*

Ginny DeLuca

Description

Delete Supporter Group

Cancel

Save

Members

Search for existing Contacts to add as Members of this Supporter Group

Add a New Contact

0 members selected

Select Member(s) to take actio

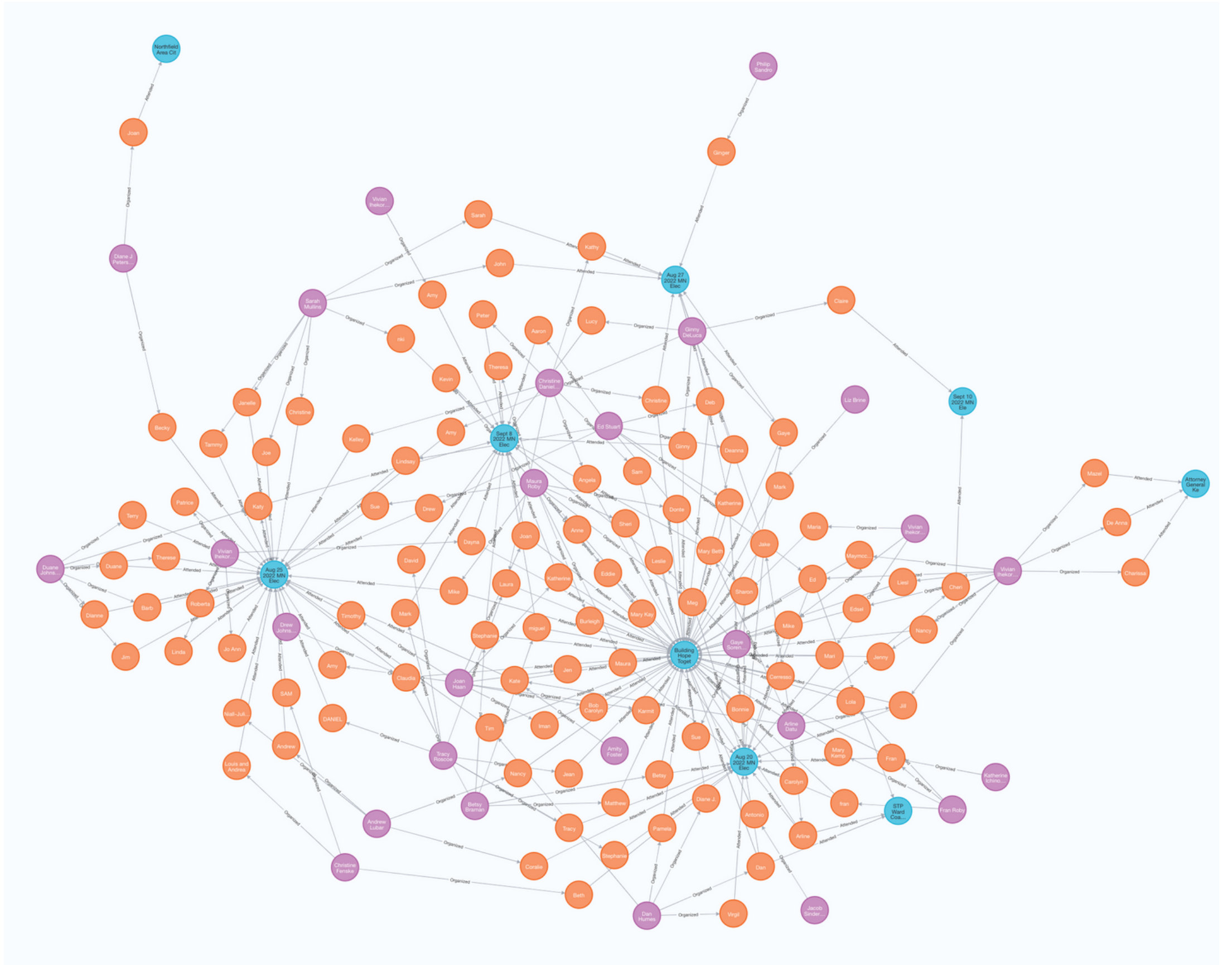
<input type="checkbox"/>	Member Name	Date Added	Last Completed Event	Last Completed Event Date	# of Events Completed	Next Scheduled Ever
<input type="checkbox"/>	DeLuca, Ginny	7/15/22	Sept 8 2022 MN Electoral Strategy Session (STP)	9/8/22	2	
<input type="checkbox"/>	DuGarm, Katherine	7/22/22	Building Hope Together: Virtual ISAIAH/FIMN Listening Session (STP)	7/28/22	1	
<input type="checkbox"/>	Storbakken, Amy	8/10/22			0	
<input type="checkbox"/>	Stoessel, Stephanie	9/8/22	Sept 8 2022 MN Electoral Strategy Session (STP)	9/8/22	1	
<input type="checkbox"/>	Sinderbrand, Jake	8/23/22			0	
<input type="checkbox"/>	Sorenson, Gaye	7/28/22	Building Hope Together: Virtual ISAIAH/FIMN Listening Session (STP)	7/28/22	1	
<input type="checkbox"/>	DeLuca, Jim	10/22/22			0	
<input type="checkbox"/>	Rasmussen, Claire	8/14/22			0	

# THE NETWORK

ISALAH Organizers, Events  
and Leaders

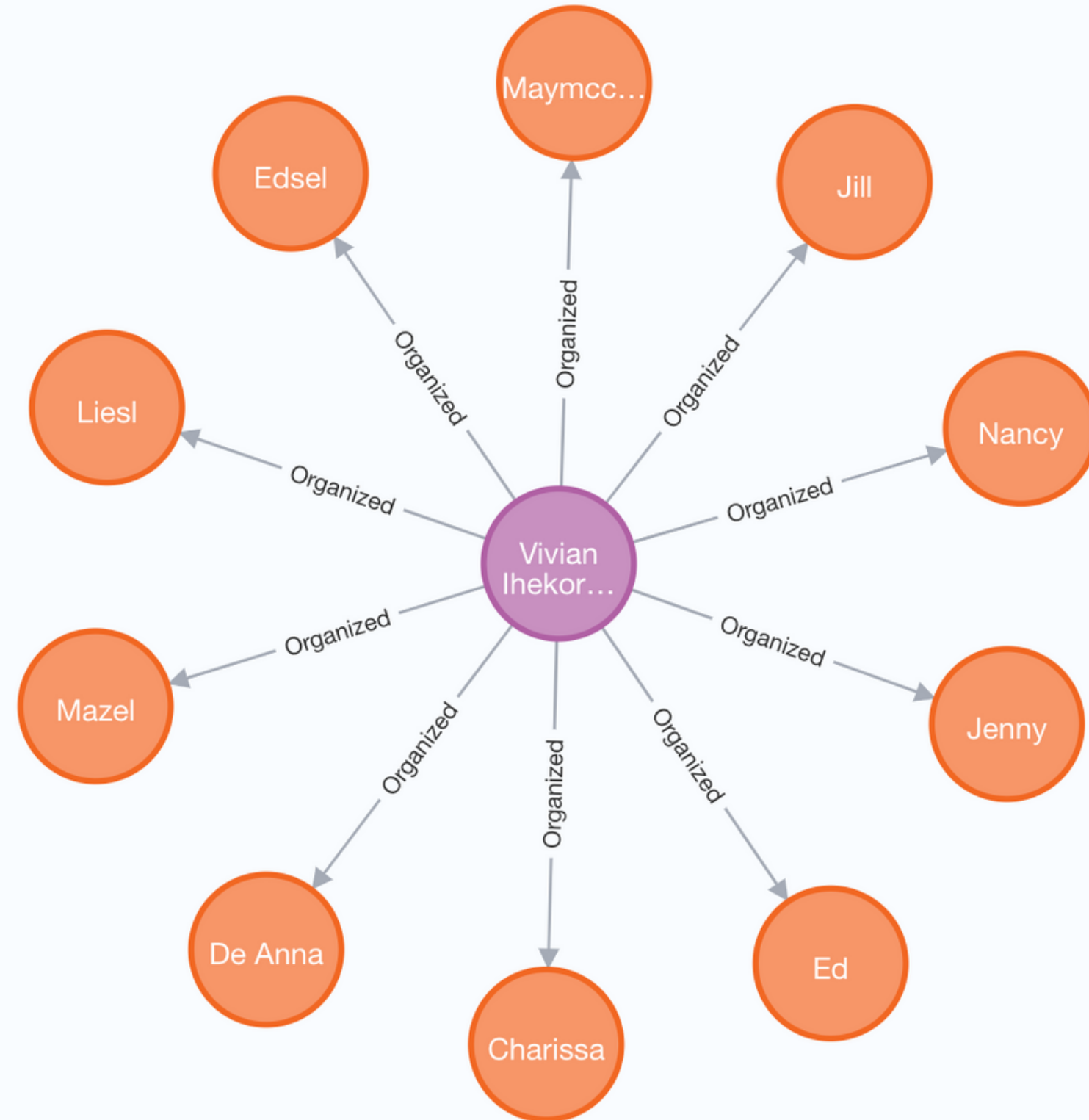
# THE NETWORK

ISALAH Organizers, Events  
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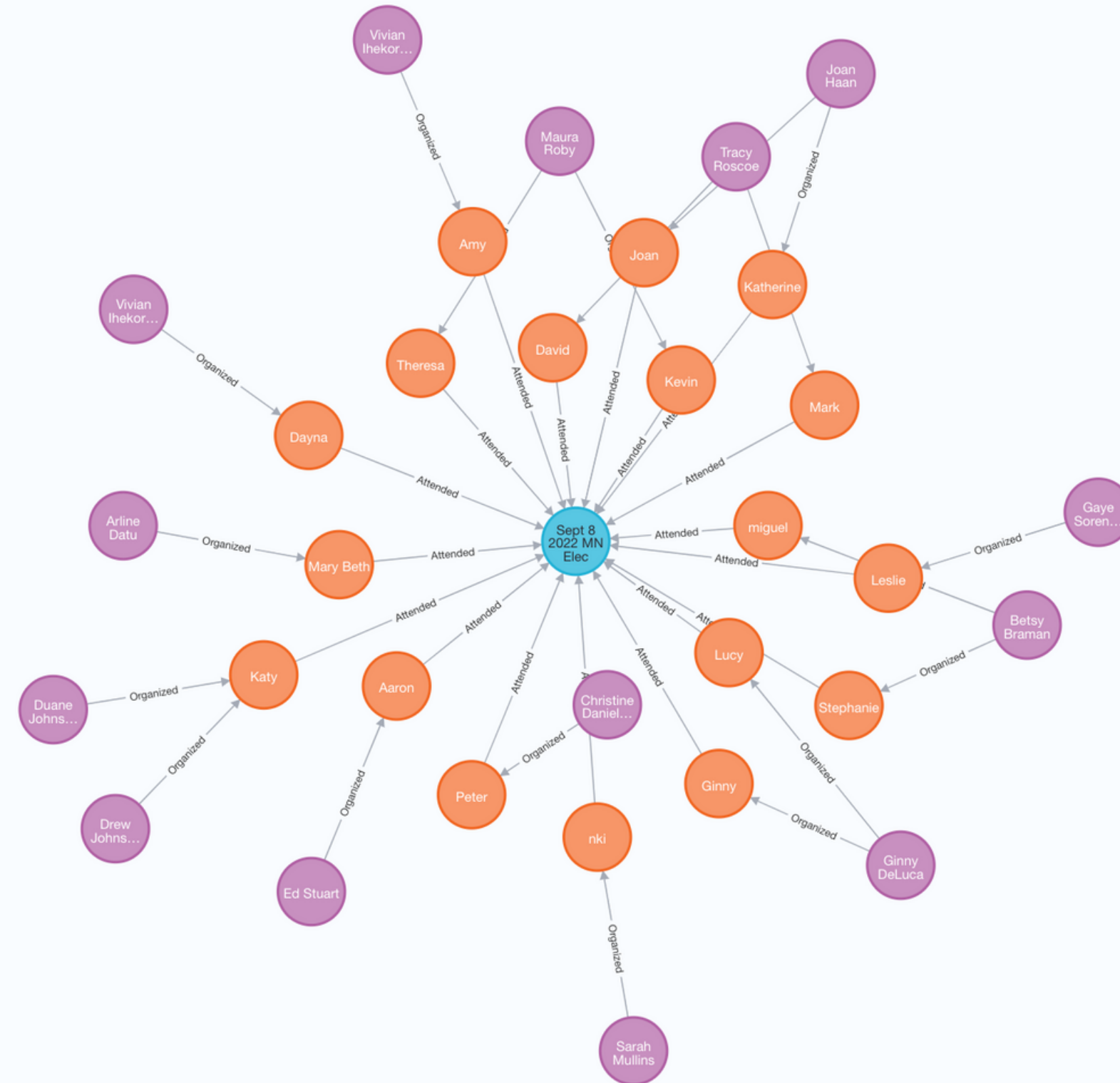
# ONE ORGANIZER'S NETWORK

The Leaders an Organizer has worked with



# ONE EVENT'S CONNECTIONS

The Leaders who attended a single Event and which Organizers invited them there







Power of Visual



Debrief Tool



Agitation Tool



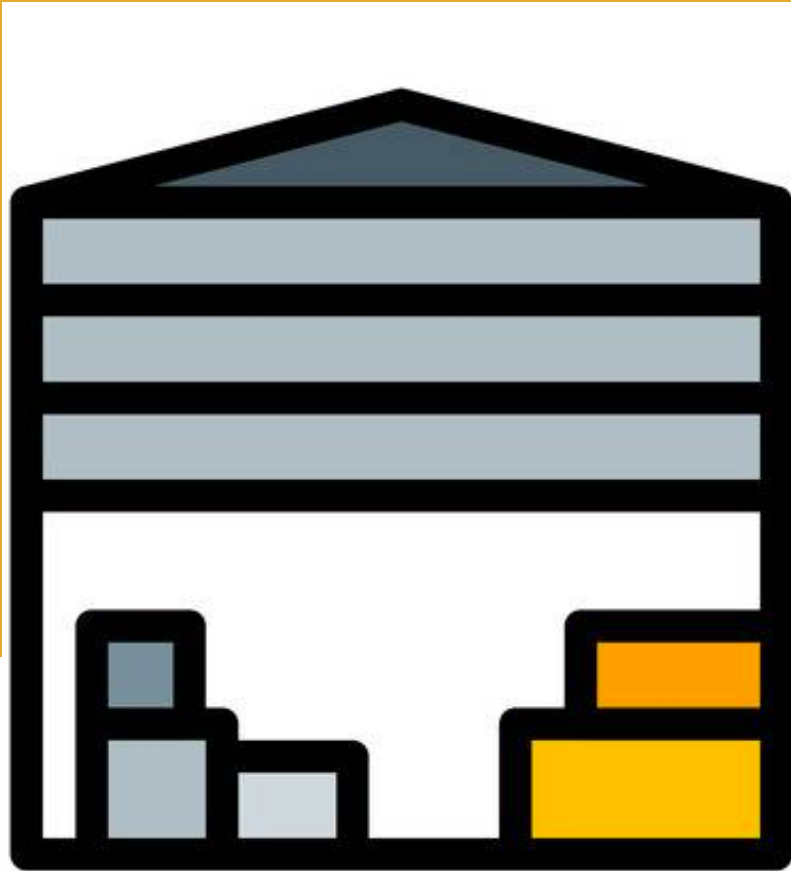
Celebration Tool

# Learnings from an Organizer

One Organizer from ISAIAH reviewed the database and provided key insights on how this model would be helpful to her, other organizers, and leaders in the ISAIAH network

**"TO BE IDENTIFIED AS SOMEONE A  
PERSON KNOWS IS THEIR POINT OF  
CONTACT IS ALSO IMPORTANT TO  
ME. THEY WILL BE SOMEONE WHOSE  
LEADERSHIP I'M GOING TO INVEST  
TIME IN DEVELOPING. "**

Ginny DeLuca, SuperLeader in St. Paul



Storage Matters



Form and Function



Visualization is  
a Story



Data = Organizing

## Overall Learnings

When we consider new processes and systems, we need to prioritize the organizing happening on the ground. When the focus of the work is leadership development and basebuilding, the interactions leaders have with data and data infrastructure can help move them forward or be a barrier.




**THANK YOU!**

**ANY QUESTIONS?**







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