

# Innovations for Community-Held Infrastructure

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## Seattle Community Network (SCN)

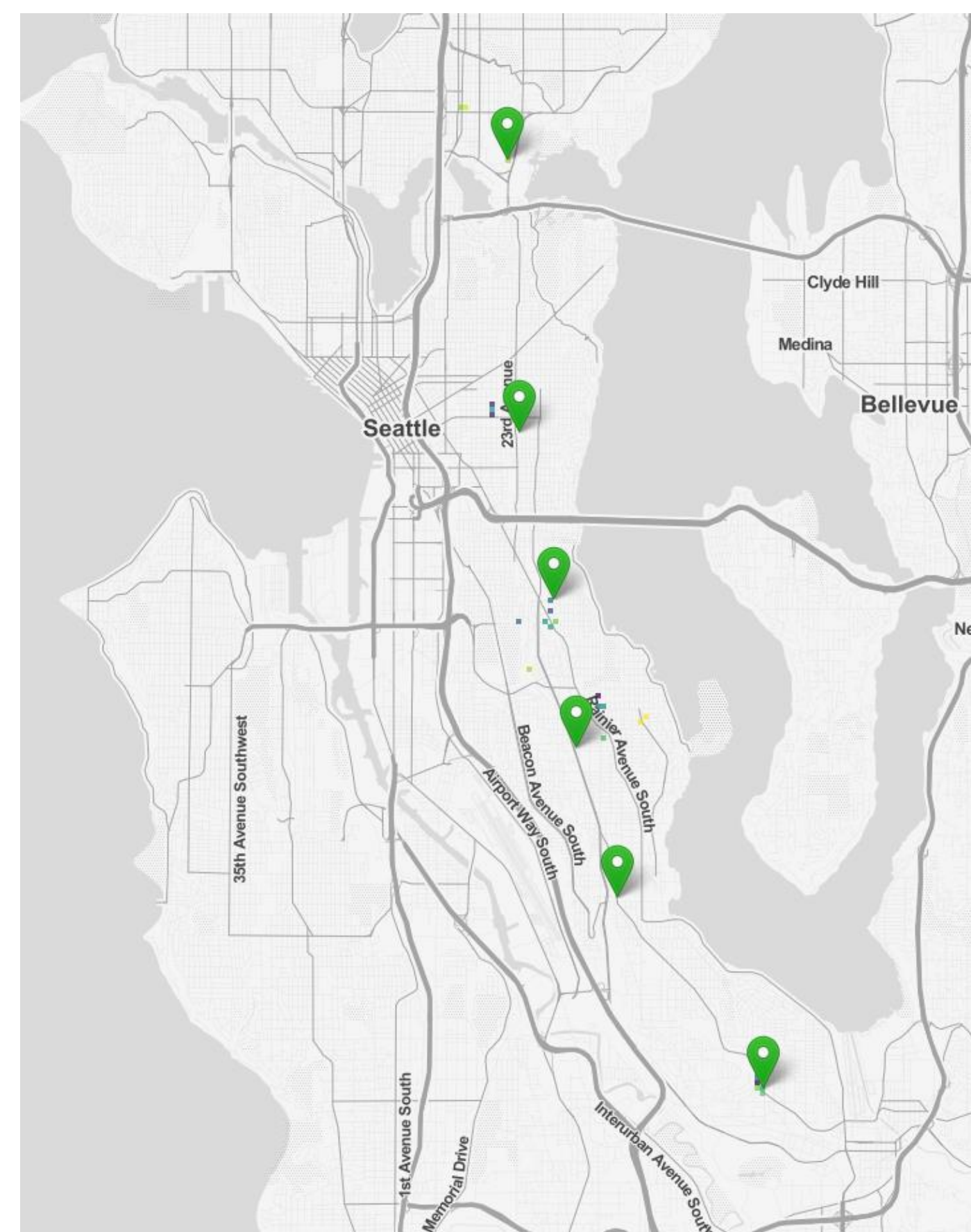
The Seattle Community Network (SCN) is a community-run cellular (4G LTE) Internet access network dedicated to providing fair access to underserved communities all across the Puget Sound.

Our project is grounded in the principles of community empowerment. The network is a participatory construction, where local residents and institutions help each other in a collaborative and community-minded way. , with the goal of specifically addressing the following questions:

1. How should edge compute services best be designed to operate with small stakeholder community networks? What are the social and political implications of these services?
2. How might network-integrated sensing platforms be used to support community-driven data collection and improve local resilience?
3. How can small community organizations run secure networks while sharing resources and building social capital among marginalized and under-served communities?

## Project Goals

We focus on the development of the following community-led innovations: (1) novel network services, such as localized CDNs, community (non-law enforcement-led) crisis management, and digital literacy training; (2) sensing systems, such as traffic collision detectors (coupled with the above crisis management), and air and soil monitoring, and (3) related security aspects such as network security and community-based information and data privacy.



## Y1 Planning

- Initial kickoff and weekly meetings
- Operationalized our community engagement and research approaches and collectively wrote an approved IRB application for the project.

## Y1 Community Building

- Work with Filipino Community Center to expand coverage
- Including "help desk" and hack night
- Two "Discotechs" with public libraries
- Production and use of "digital stewards" material with adults and youth

## Y1 Computer and Social Science

- Development and deployment of local services platform - iNethi
  - Developed out of the University of Cape Town
- Exploring local sensing/visualization platforms
- Review of existing technology co-design toolkits and methodological approaches - Found that resources for supporting the co-design of community networking technologies are underdeveloped



A community install at the Skyway Library

## Y2 Agenda

- Set of "listening sessions" in Tacoma
- In October
- Invites out to 40 local community organizations
- Initial sensing workshops in Seattle
- Starting with Northlake Tiny Home Village
- Completion of technical platform
- Development of initial community networking toolkits based on workshop experiences