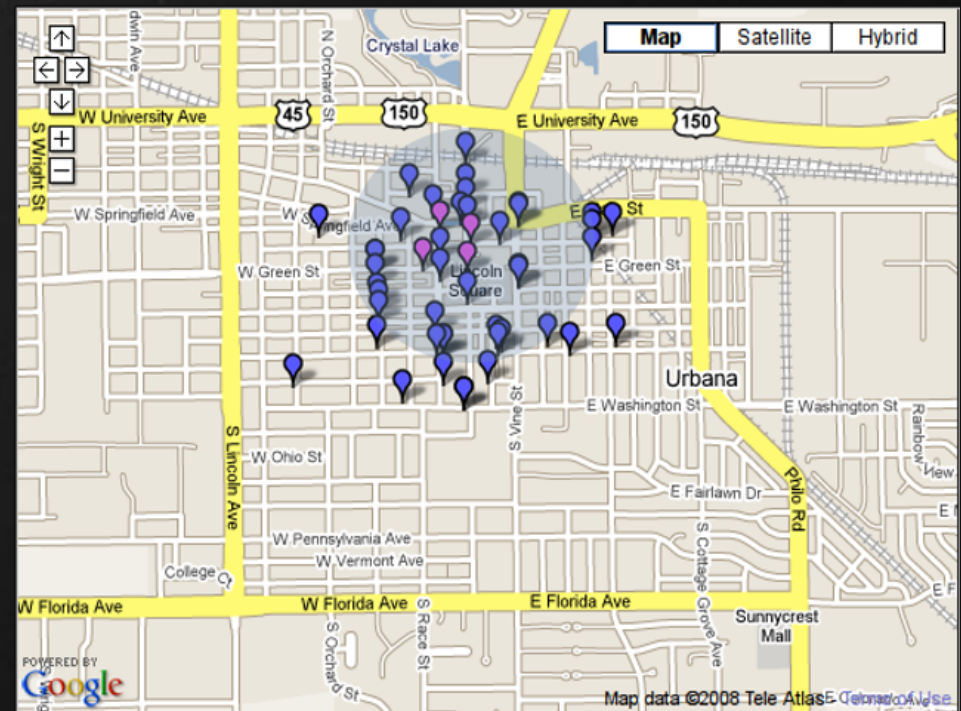


2008-3

Community Networks IPv6
Allocation

What is a Community Network?

- A network established to provide services to a certain geographical area as a supplement or alternative to a traditional ISP.
- Usually associated with a not-for-profit organization or loosely organized collection of individuals.
- Operated for the general benefit of the residents of the service area for little or no cost.



Champaign-Urbana, Illinois, U.S.

Community Networks:

- Use a variety of technologies, ranging from fiber optics to wireless to legacy coaxial and custom-built optical links.
- Provide many different services depending on the network, including public access terminals, wireless internet, independent media creation, intranet services, digital library checkouts, etc.
- Are operated by many different kinds of organizations, such as community co-ops, 501(c)3 non-profits, and universities.

Why do they need IPv6?

Many (most) community networks support IPv6, but need address space in order to:

- Simplify network management and architecture by providing unique addresses for a large number of sites/nodes without NAT.
- Facilitate content production and hosting within communities (i.e., Intranet services & applications).

Continued...

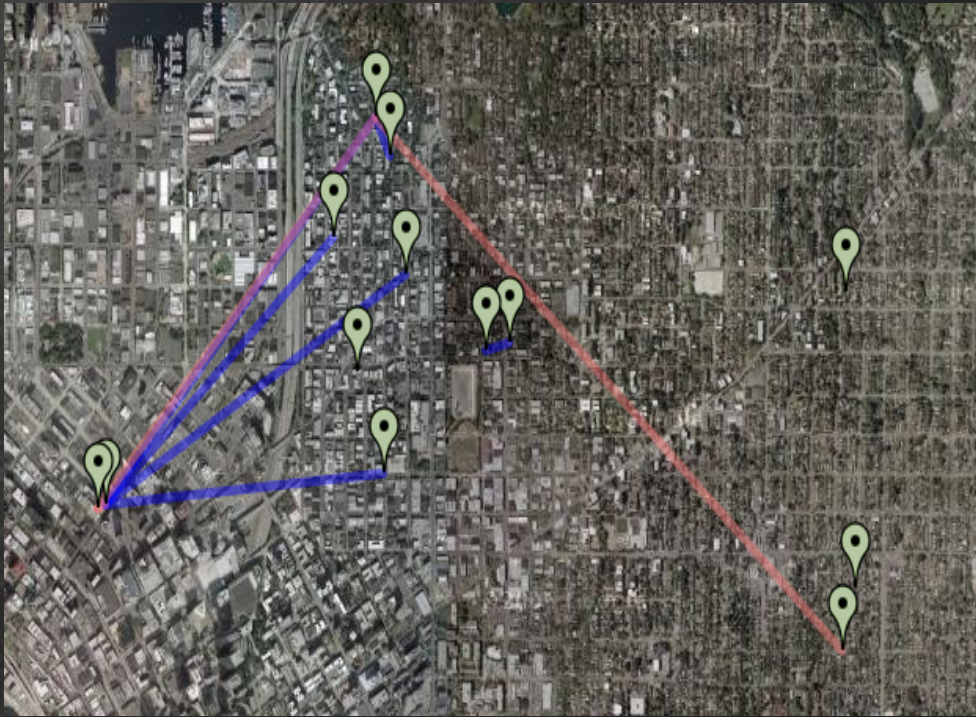
- To support "device-as-infrastructure" networking, where individual inexpensive components of a network (like PCs, Linksys WRT54G routers, OLPC laptops, or mobile devices) can be moved between different parts of a multi-homed network within a community.
- Research and development on inexpensive open-source internet technologies supporting IPv6 in order to help close the digital divide.

Clarifications added to the proposal:

1. **Volunteer Staff:** Community Networks are usually largely volunteer-maintained, and the proposal now reflects that.



Homer, IL, U.S.



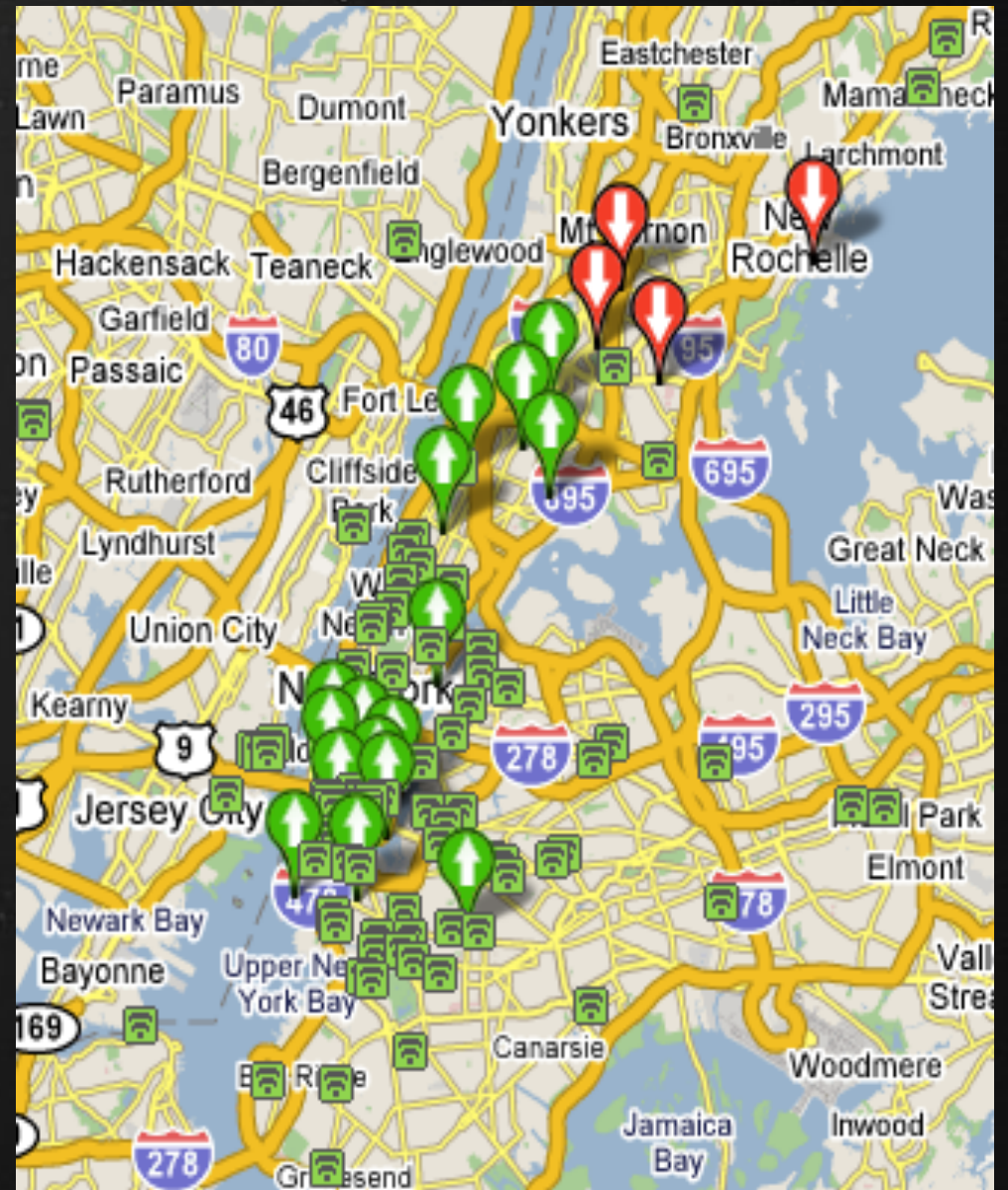
Seattle, WA, U.S.

2. Budget:

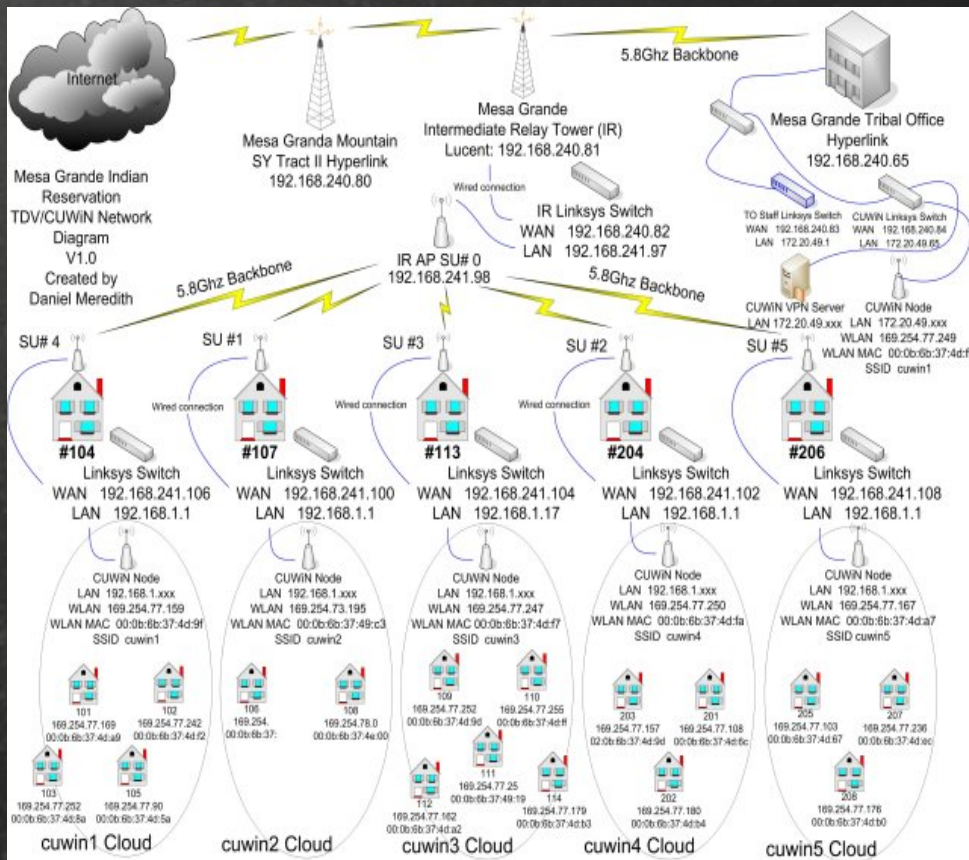
The proposal now limits qualifying community networks to \$250,000 of annual revenue in order to keep applicants from including those that could afford to apply for an allocation under other policies.

3. Fiscal Status

Proposal now specifies that the community network must either be a nonprofit organization or be sponsored by a nonprofit or university, in order to clarify the ultimate holder of accountability for the allocation.



New York City, NY, U.S.



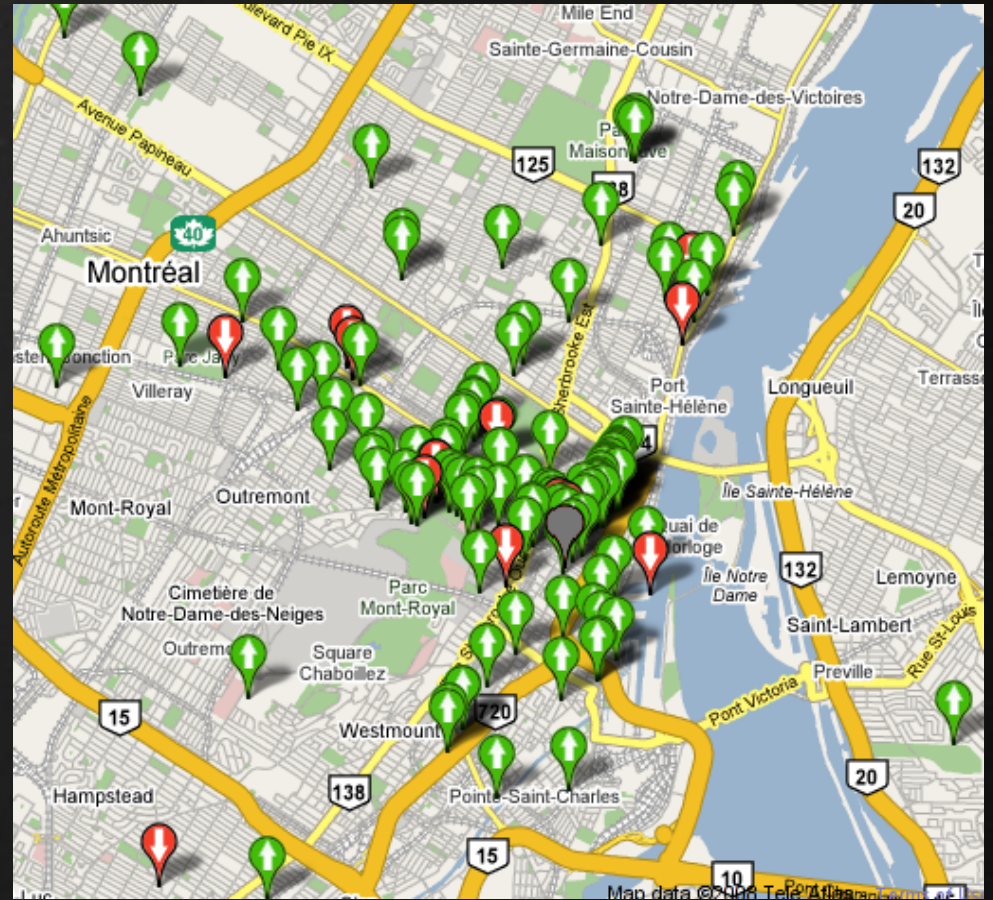
Tribal Digital Village, Mesa Verde, CA, U.S.

What this proposal seeks to do:

- Simplify the process of acquiring address space for an under-served segment of the populace at a time when the IPv6 space is just beginning to be allocated.
- Provide a space within which to pursue reduced costs for community networks.
- Allow ARIN discretion for qualification of community networks under this proposal to avoid abuse (they're difficult to define, but you know them when you see them).

What it does NOT seek to do:

- Provide a way for organizations that have the means to easily achieve address space under other policies a cheaper alternative.
- Guarantee routability; only trying to get a unique address space for community networks, not create routing table issues. If a community network wants routability, that's between them and their upstream provider.



Montreal, Quebec, Canada

A revised policy statement, including suggestions from the Oct. 8th staff/legal assessment, which will be submitted for approval immediately after this meeting (proposal type/term and rationale the same as before:

Policy statement:

[Add Section 2.8 to the NRPM.]

2.8 Community Network

A community network is a generic reference to a network that is operated by a group of people living in a particular local area organized for the purposes of delivery or provision of free or low-cost network services to the residents of an incorporated or unincorporated regional municipality, city, town, village, rural municipality, township, county, district or other municipality or other such geographic space, however designated.

[continued...]

In order to qualify as a community network under this policy, the community network must certify to ARIN that their staff is at least half volunteer and that their annual revenue is less than \$250000 (in 2009 dollars, adjusted for inflation). Legal responsibility for the network as a whole must be held by an organization either possessing non-profit status or fiscally sponsored by a non-profit organization or university.

[Add Section 6.5.9 to the NRPM.]

6.5.9 Community Network Allocations

6.5.9.1 Qualification Criteria

To qualify for a direct assignment, a community network must demonstrate that it will immediately provide service to at least 100 users and must demonstrate a plan to provide service to at least 200 users within one year.

6.5.9.2 Initial Assignment Size

The minimum size of the assignment is /48. Organizations requesting a larger assignment must provide documentation of the characteristics of the Community Network's size and architecture that require the use of additional subnets. An HD-Ration of .94 with respect to subnet utilization within the network must be met for all assignments larger than a /48. These assignments shall be made from a distinctly identified prefix and shall be made with a reservation for growth of at least a /44.

6.5.9.3 Subsequent Assignment Size

Additional assignments may be made when the need for additional subnets is justified. Justification will be determined based on a detailed plan of the network's architecture and .94 HD-Ratio metric. When possible, assignments will be made from an adjacent address block.

Caribbean Region

Significant support for this proposal was expressed in the sector meetings in the Caribbean region, where it can be used to establish ad-hoc community networks in sparsely populated areas.

- This policy is made for serving small communities in their own interest rather than with expectation of profit.
- Many community networks in the region are sponsored by for-profit universities, thus the inclusion of language specifically allowing universities to be the sponsors of the networks.