Clarity Connect

Clarity Overview

- NYState C Corp. Started providing Internet Access summer of 1995.
  - early adopter of ISDN
  - one of the first DSL providers in the Nation (summer 1996)
  - providing commercial fixed wireless since 1997

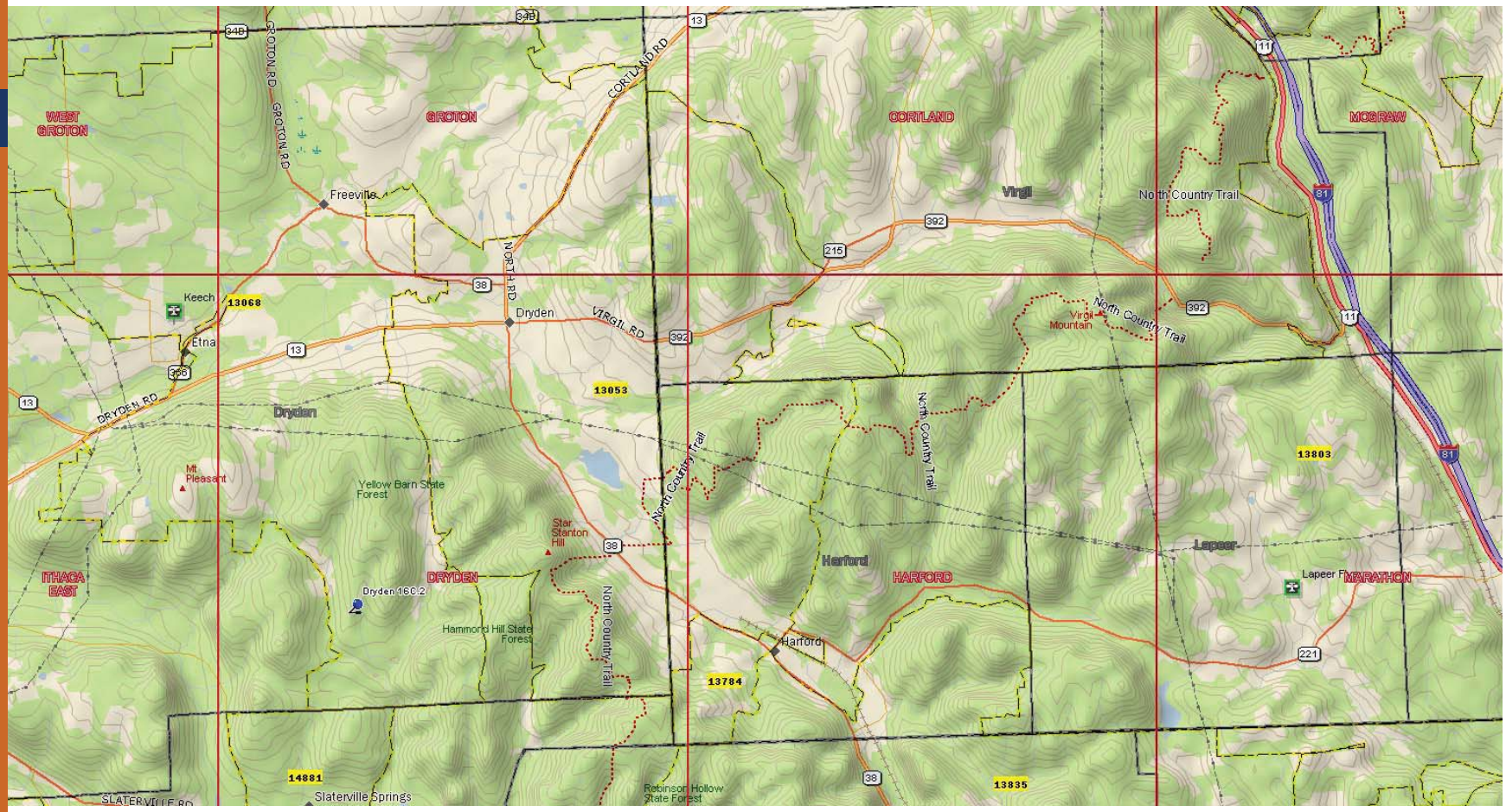
Clarity Overview

- Chuck Bartosch
  - former physicist (Stanford undergrad, Cornell grad school)
  - Magnetospheric physics at Lockheed-Martin
  - 2D phase transitions, laser-surface adsorbate interaction studies
  - Multiple successful technology businesses since 1985

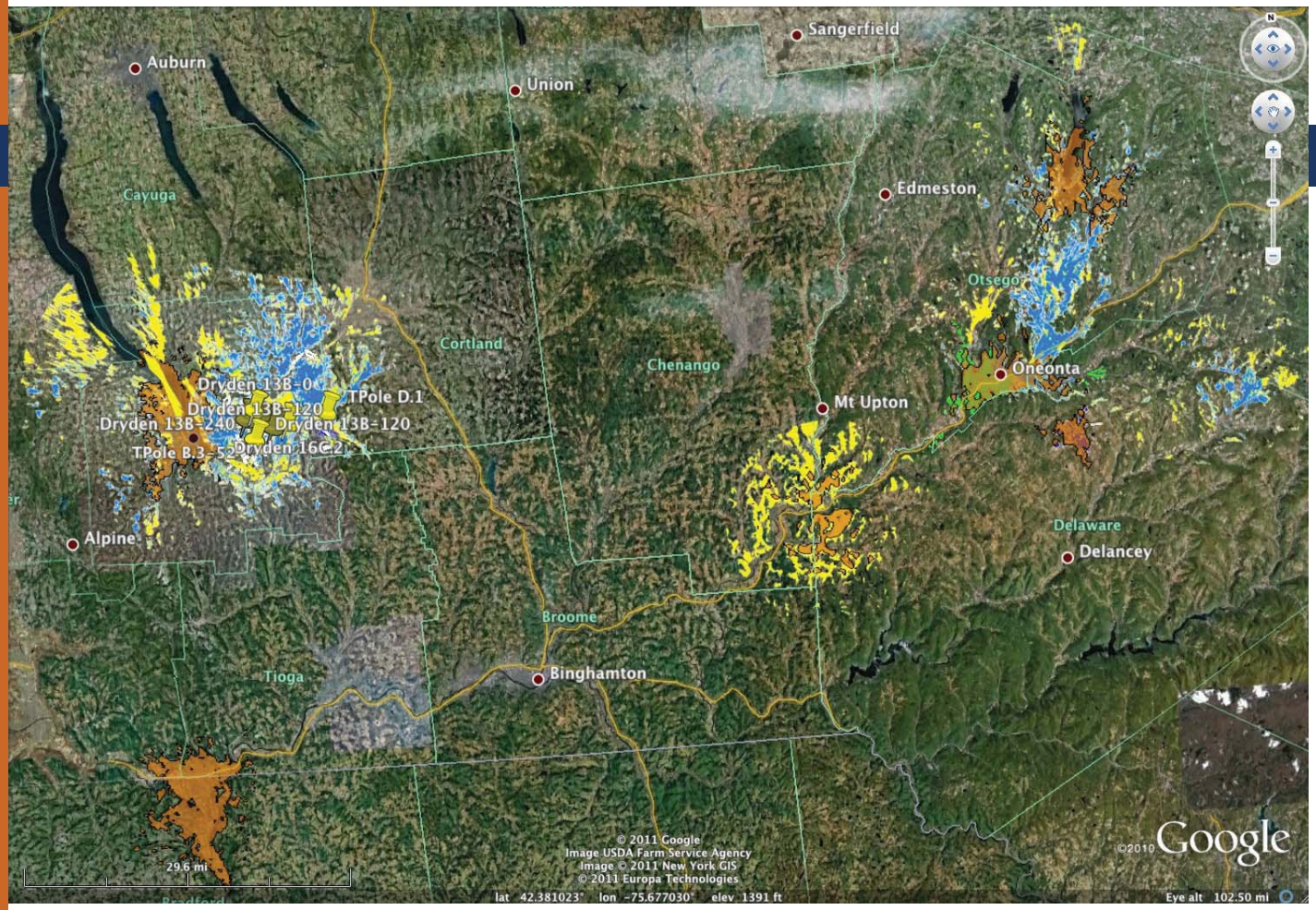
Geography

- Serving upstate NY and northern PA
  - Tompkins, Tioga, Otsego, Delaware Counties in NY
  - Bradford County in PA
- 1200 square miles covering 105K people, with 42K in rural areas outside of cities or primary villages, 63K in cities or primary villages

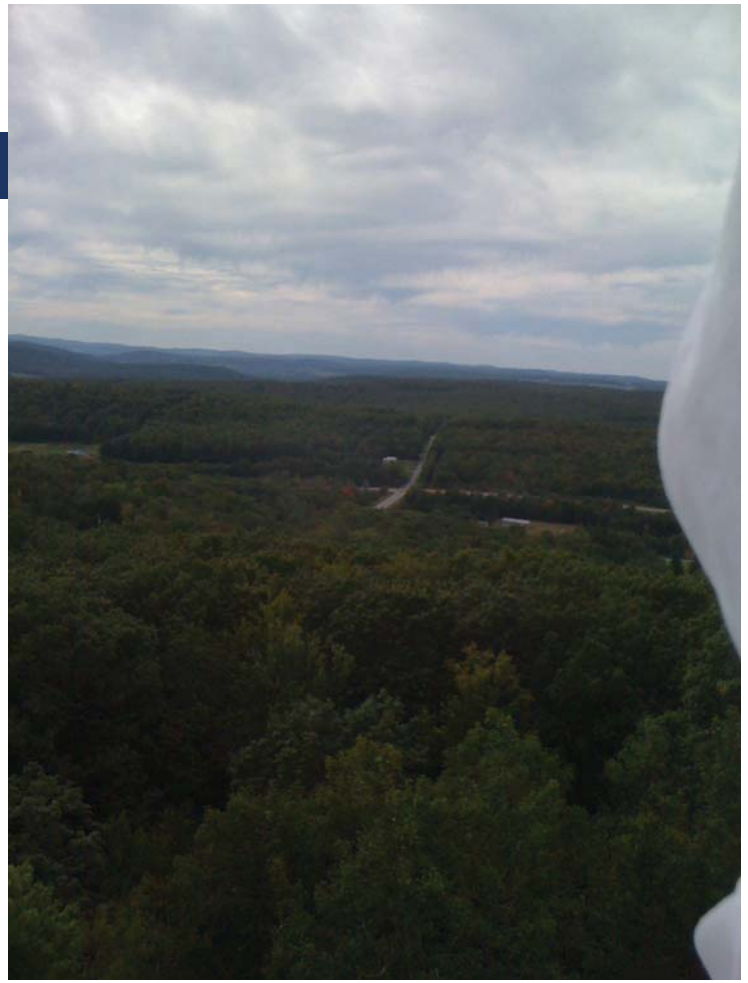
Geography


WEST GROTON
GROTON
GROTON RD
CORTLAND RD
CORTLAND
MCGRAW
Freeville
Virgil
North Country Trail
392
215
38
NORTH RD
Keech
13068
Dryden
VIRGIL RD
Virgil Mountain
Etna
13
366
DRYDEN RD
13053
Dryden
Mt. Pleasant
Yellow Barn State Forest
Star Stanton Hill
13803
Lapeer
ITHACA EAST
DRYDEN
Dryden 16C 2
Hammond Hill State Forest
Harford
HARFORD
MARATHON
221
13784
14881
Slaterville Springs
Robinson Hollow State Forest
13835
81
11

Overall Coverage Map



View From Sidney Tower

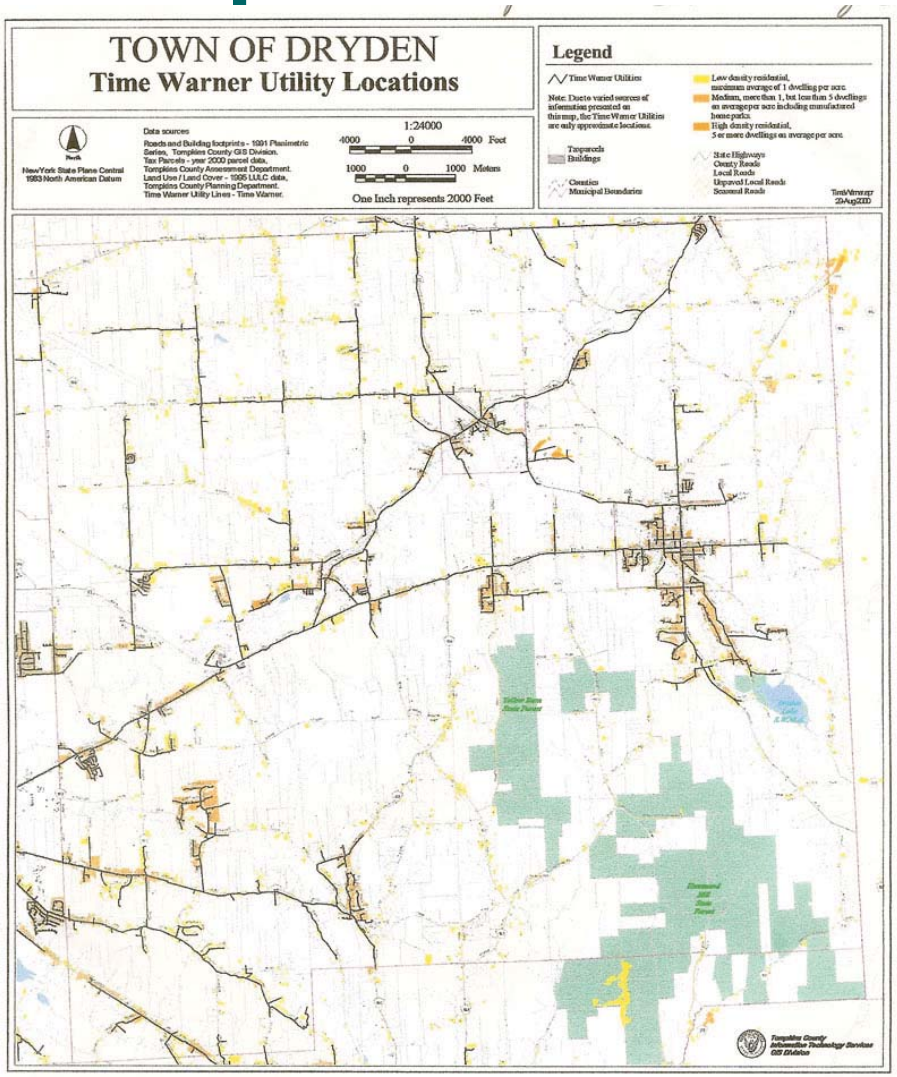


Castle Mountain

Technology

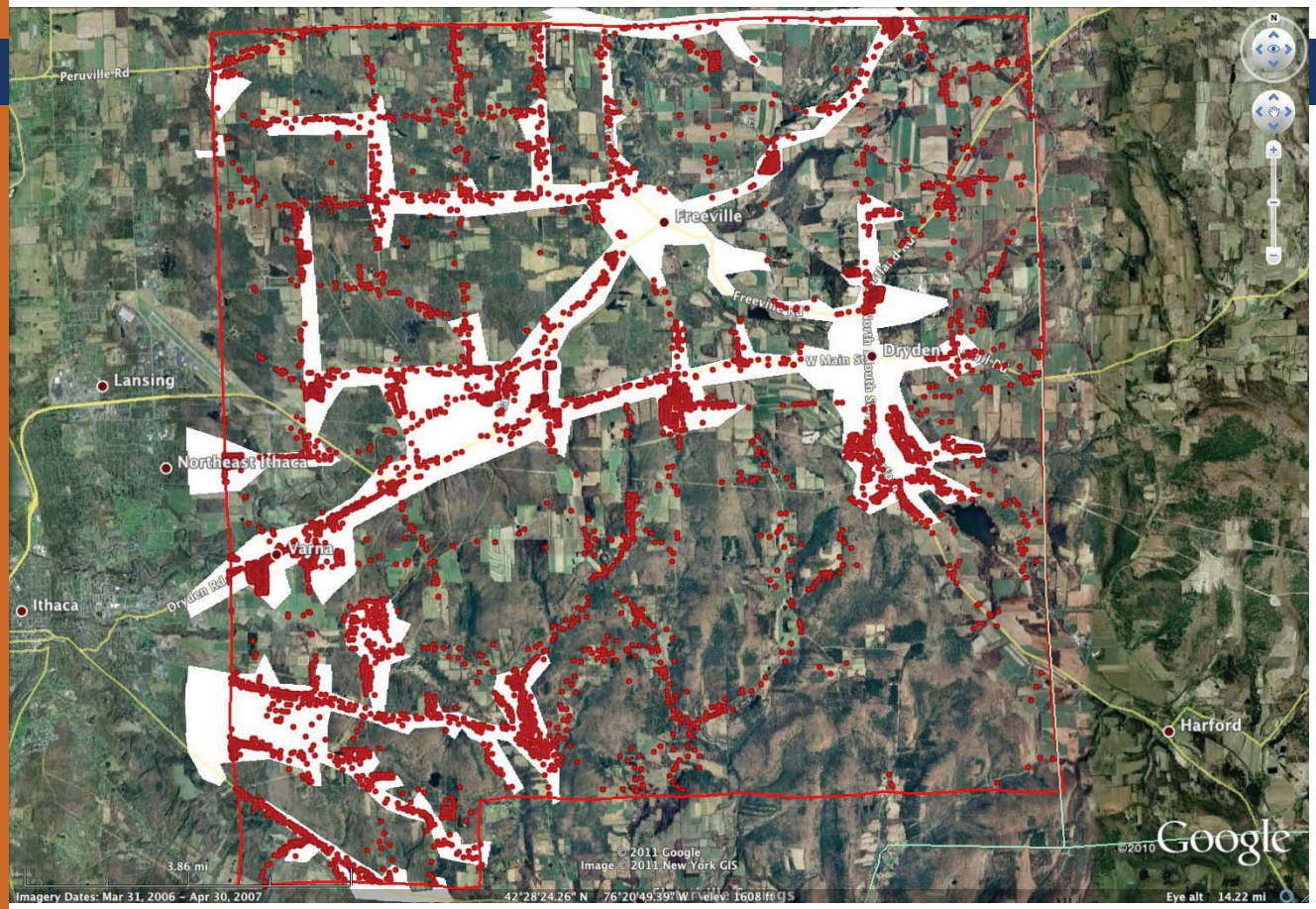
- Rolling out Alvarion Dual-Diversity WiMax 802.16e equipment
- Backhauls are unlicensed Alvarion or Ubiquity for backup or smaller sites
- Critical sites use Ceragon licensed links at up to 400 Mbps full duplex

Example Rollout: Town of Dryden



- **Time-Warner Coverage Map**

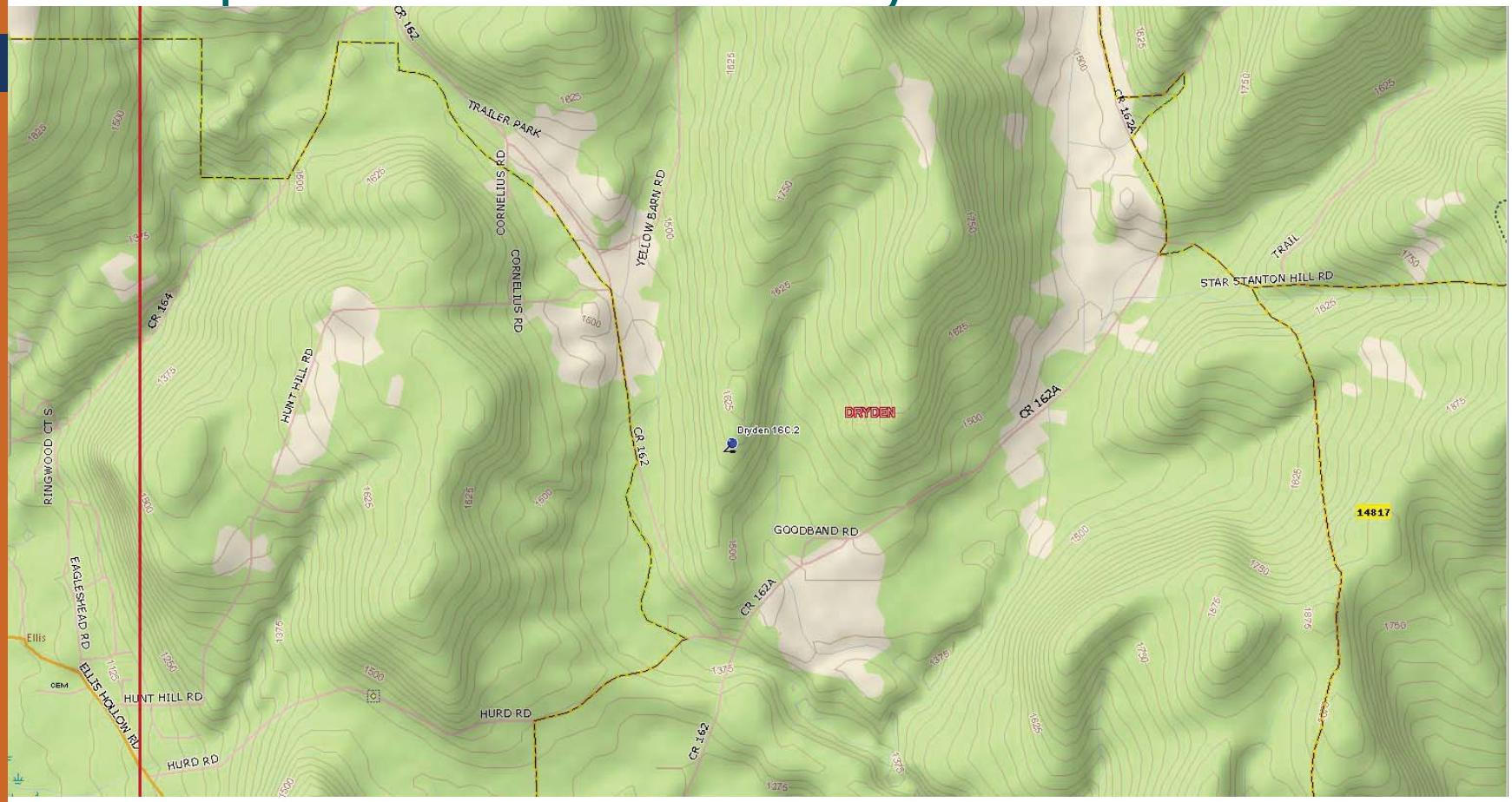
Example Rollout: Town of Dryden



- **Unserved areas**

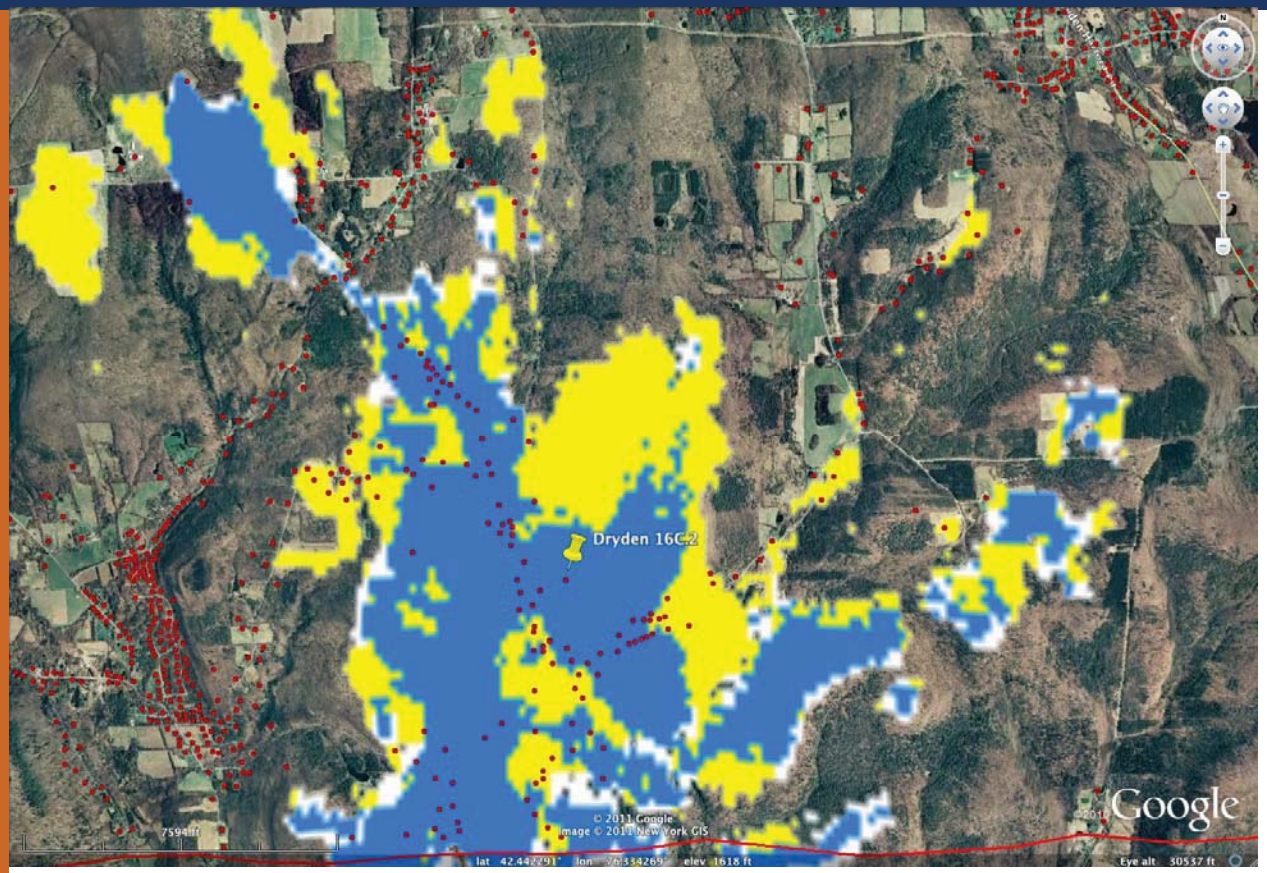
- **Topo of Drydren 16C.2 area**

Example Rollout: Town of Dryden

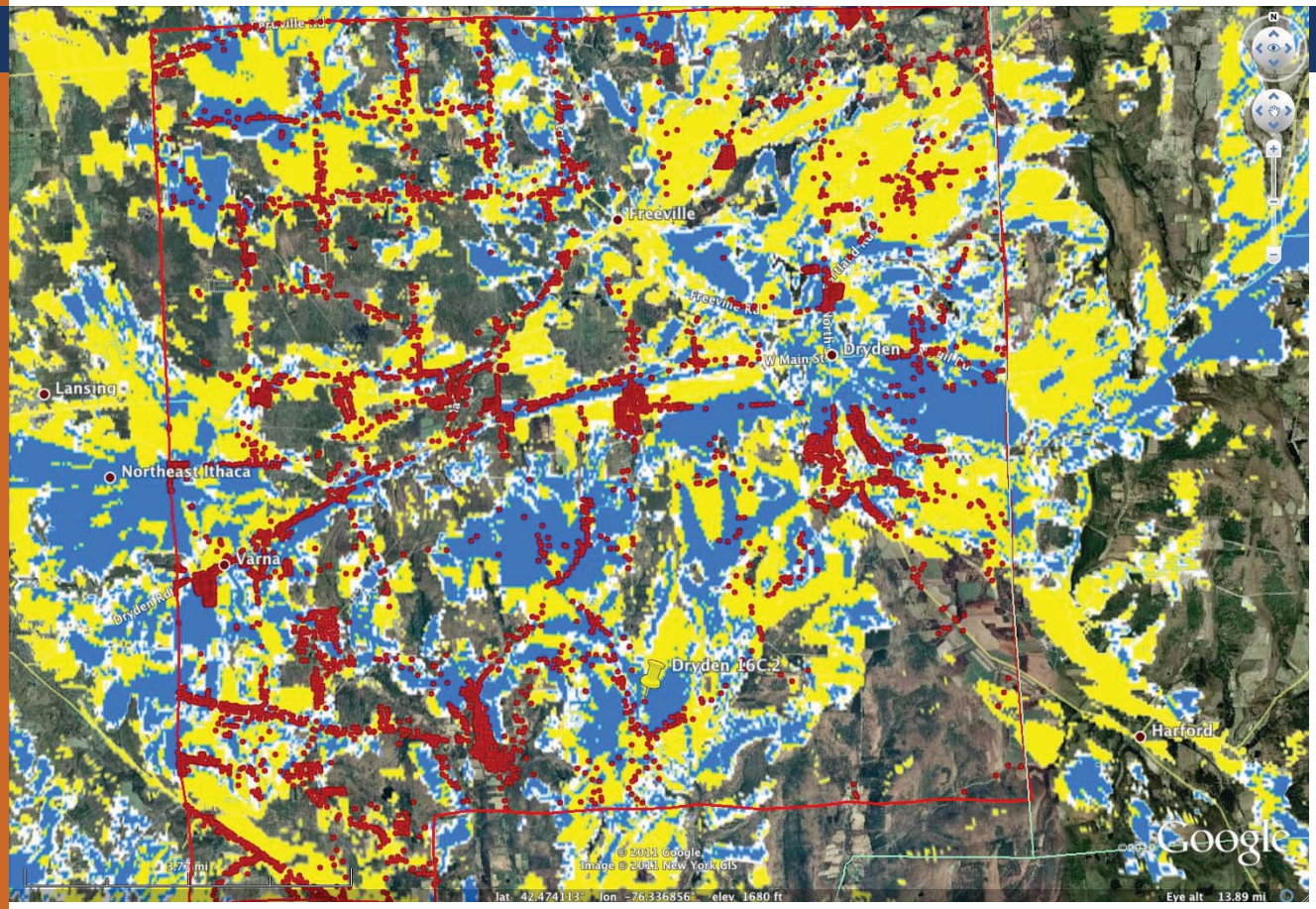


- **Coverage from Drydren 16C.2**

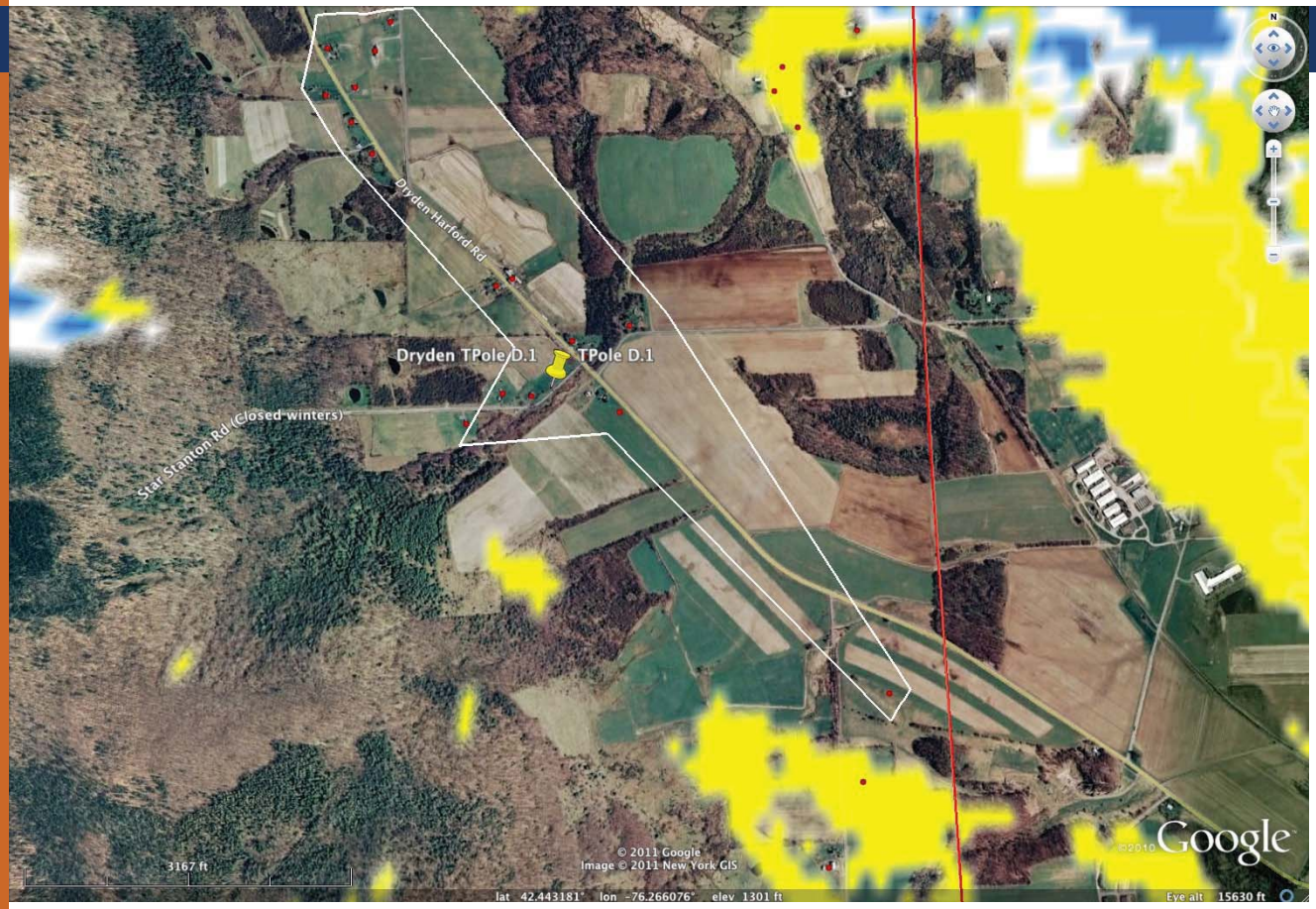
  Example Rollout: Town of Dryden



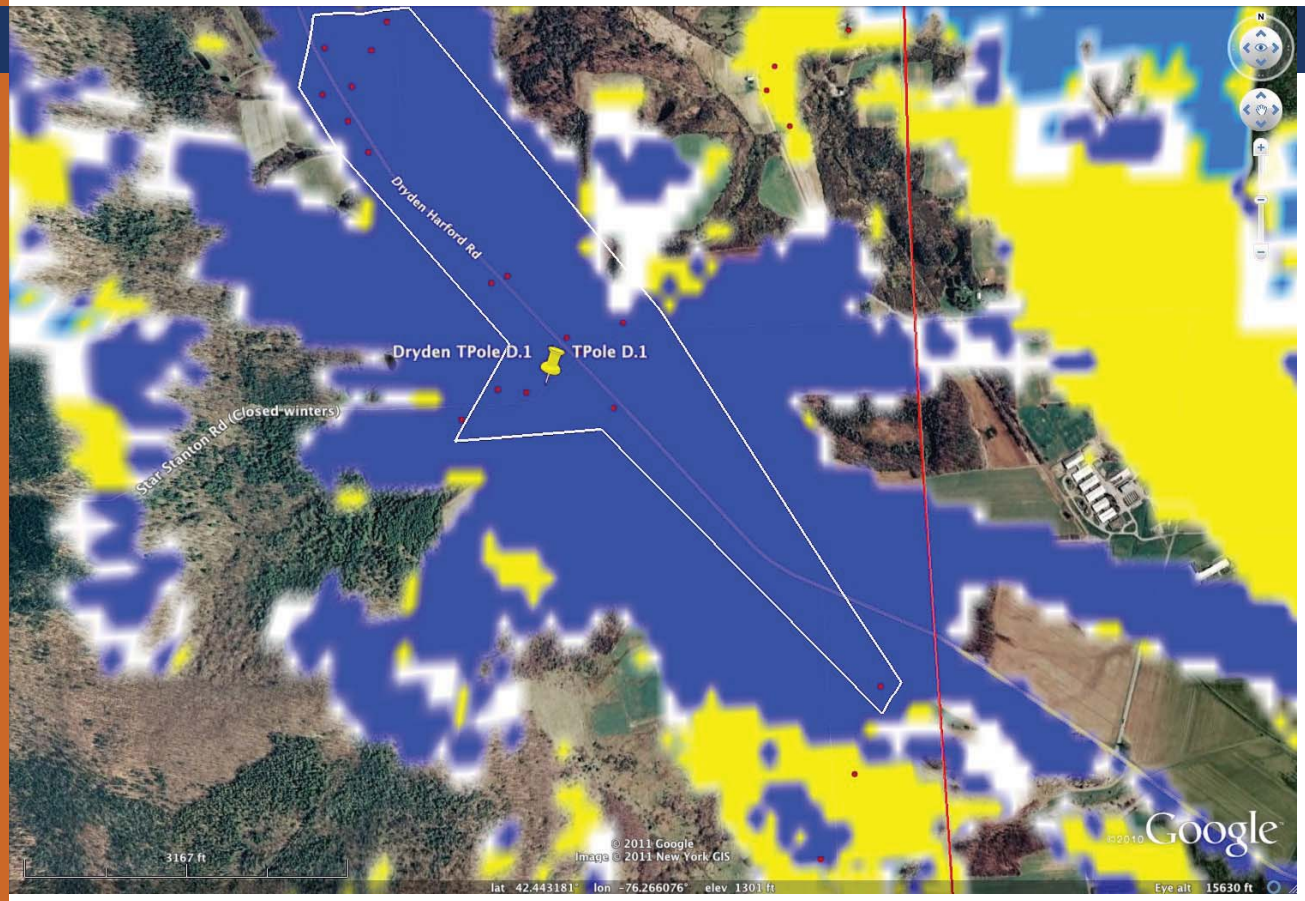
Dryden Project Total Coverage



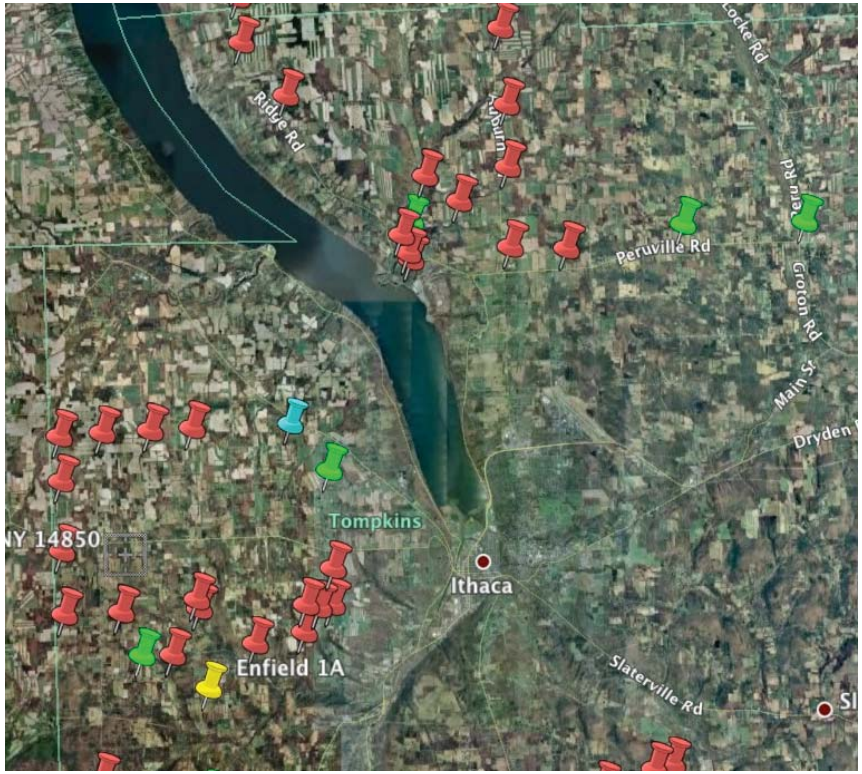
Dryden Gap D


Dryden-Harford Rd
Dryden TPole D.1
TPole D.1
Star Stanton Rd (closed winters)
3167 ft
© 2011 Google
Image © 2011 New York GIS
lat 42.443181° lon -76.266076° elev 1301 ft
Eye alt 15630 ft
Google

Dryden Microcell D.1: reaches 17 people



Costs of Microcell: $4,800

- Telephone pole
- NEMA enclosure
- Radios (distribution and backhaul)
- Dual PS router
- Remote reboot
- UPS
- Mounts, cables, etc.

3G Coverage Study