



**Navajo Nation  
Broadband Build Out Initiative**

## Public Law 111-5, American Recovery and Reinvestment Act of 2009

### Title VI—Broadband Technology Opportunities Program

The purposes of the program are to—

- 1) Provide access to broadband services to consumers residing in **unserved** areas of the United States
- 2) Provide improved access to broadband service to consumers residing in **underserved areas** of the United States
- 3) Provide broadband **education, awareness, training, access, equipment,** and support to—
  - a) **schools, libraries, medical and healthcare providers, community colleges** and other institutions of **higher education,** and other **community support organizations** and entities to facilitate greater user of broadband service by or through these organizations.

- b) Organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband services by low in-come unemployed, aged, and otherwise vulnerable populations; and
- c) **Job-creating strategic facilities** located within a State-designated economic zone, Economic Development District, designated by the Department of Commerce, Renewal Community or Empowerment Zone designated by the Department of Housing and Urban Development, or Enterprise Community designated by the Department of Agriculture.

- 4) Improved access to, and use of, broadband service by **public safety agencies**; and
  - 5) Stimulate the demand for broadband, **economic growth**, and **job creation**.
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- (1)(a) Be a State or political subdivision therefore, the District of Columbia, a territory or possession of the United States, an Indian Tribe (as defined in section 4 of the Indian Self-Determination and Education Assistance Act or native Hawaiian organization

**\$7.2 Billion** Available Funding for Broadband

U.S. Department of Agriculture  
Rural Utility Service

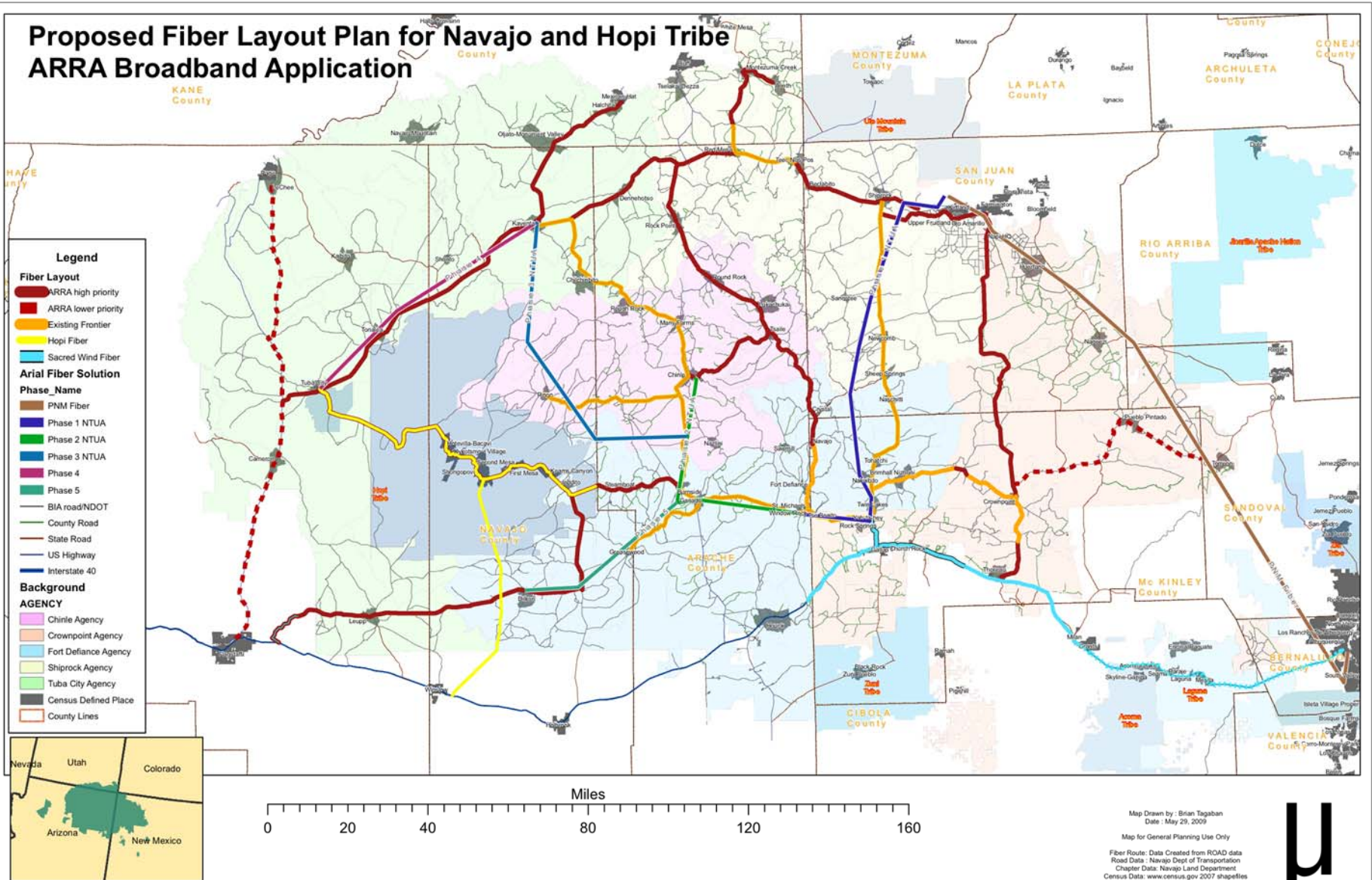
**\$2.5 Billion**

U.S. Department of Commerce  
National Telecommunications and  
Information Administration

**\$4.7 Billion**

# Navajo Nation Broadband Build Out Plan & Initiative

## Proposed Fiber Layout Plan for Navajo and Hopi Tribe ARRA Broadband Application



Navajo Nation Partners and Alliances

**The Hopi Tribe**

**Pueblo of Acoma**

Support

State of Arizona

State of New Mexico

Coconino County

City of Flagstaff

Arizona Corporation Commission

New Mexico Public Regulation Commission

San Juan County (Utah)

## Navajo Nation Partners and Alliances



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### Proposed Partners in Build Out:

Sacred Wind Communications

Frontier Communications

Navajo Tribal Utility Authority

Hopi Telecommunications Incorporated

Commnet

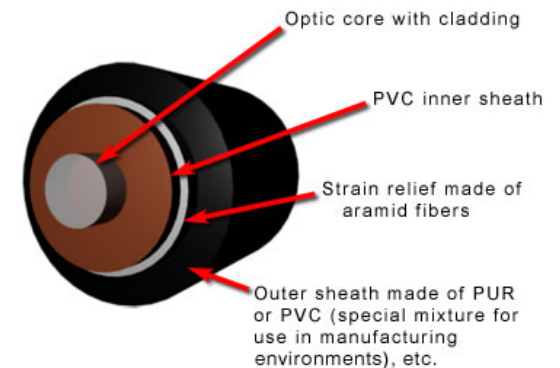
NOVA Corporation

## Technical Aspects

Fiber allows for unlimited bandwidth  
1 fiber can accommodate multiple uses

Ground fiber  
placed in conduits  
Approximately \$55,000 per mile

Aerial Fiber  
placed along poles  
Approximately \$35,000 per mile



Bandwidth – the amount of information allow to flow in particular medium

Comparison of medium/methods

Dial up 56kbs ( kilo bits per second ) ~ 56,000

Home DSL 2.0 Mbs burst ~ 2,000,000

Business T1 1.5 Mbs sustained ~ 1,500,000

Celluar G3 14.4/5.8 Mbs burst ~ 14,400,000

Fiber 40Gbs sustained per fiber ~ 40,000,000,000

Placed in trenches  
Protected by conduits  
Multiple fiber cabling in one conduit  
If following road ROW then requires  
amendment of ROW to allow multiple use.  
Protected from natural elements

Less expensive to install  
Involves less ground disturbance  
Placed along existing poles such as NTUA poles  
Multiple size Fiber cables available:  
24/96/144 fiber strands per cable



## Your Involvement!!

Your Division, Department, Program, and Agency technology needs

- Networks

- Data transport

- Capacity

  - Current Capacity

  - Future Capacity

- Private Networks

Location of Offices, Programs, and Service Areas

**Thank you!!!!**