

Using Public Broadband for Economic Development: a range of models

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American models

- Institutional: government fiber as an economic development platform for the private sector
- Enterprise: government fiber to the home where the private sector has not acted



Existing US institutional model

- Middle mile/anchor networks (I-Nets)
- Compelling economics—15 years of local models:
 - Low cost to construct and operate fiber
 - Incremental cost construction opportunities
 - Reduced operating costs and dramatic savings
 - Platform for innovation
 - Platform for last-mile buildout



Your government network as economic platform

- Open platform for new applications and new providers
- Middle-mile connection points for alternative last-mile systems
- Creates a competitive market and price restraints on incumbents
- Creates opportunity for small business *providers*

Economic platform network vision

■ Efficiencies

- Multi-use, multi-sectoral
- Regional, multi-community (or modest in scale—can be a single connection to a business park)

■ Fiber “middle mile,” wireless “last mile”

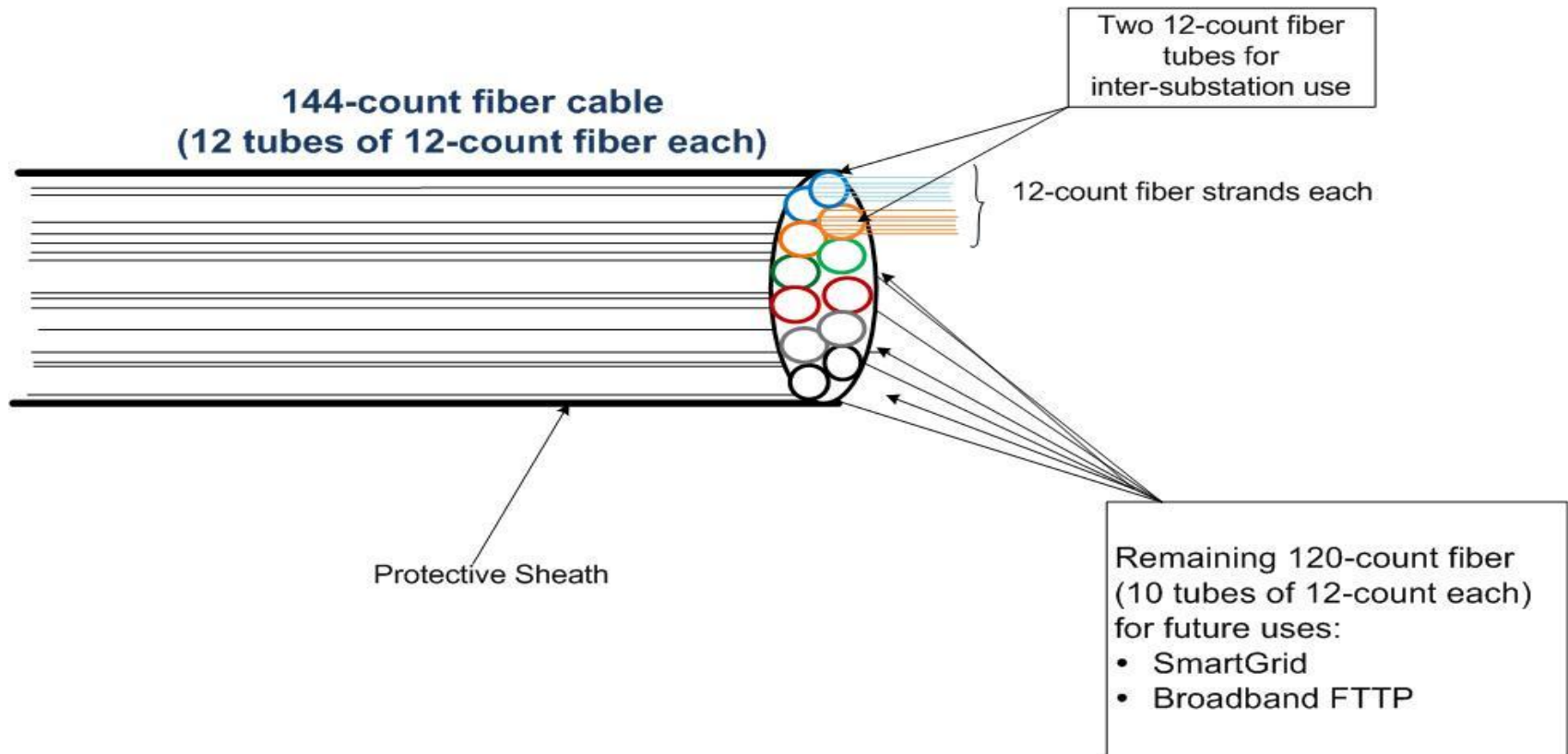
- Fiber projects to “anchors” with commitments/interest of last-mile wireless partners
- Meet anchor needs and enable last-mile providers to meet public needs

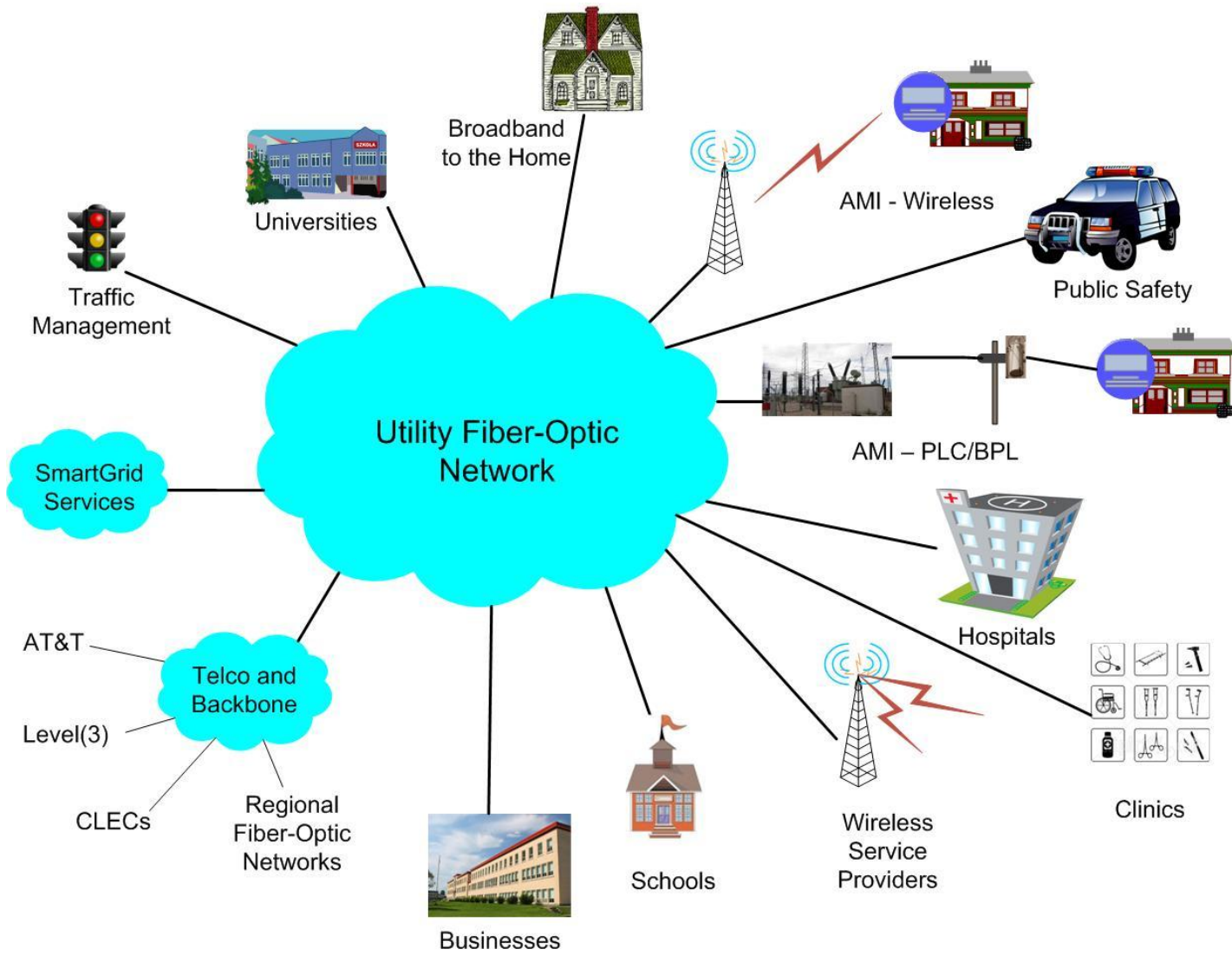


The I-Net evolves to an open middle mile network

- Next generation of government networks
 - Still core government functions with capacity for the private sector
- E-rate and other anchor revenue support
- This is the model adopted by BTOP
 - “Comprehensive Communities Infrastructure”
 - Data to flow in the next three years

Fiber assignment







Existing US enterprise model

- Fiber or HFC to the home
- 64 existing networks
 - Primarily rural (and conservative)
- Range of models, though majority are retail service providers (voice, video, and data)
- Create infrastructure where none exists and offer different pricing and speed
 - Usually, the only true high bandwidth option



Challenges and benefits

- Public broadband driven by benefits that don't sustain the enterprise
- Public broadband metrics for success have been defined by carriers
 - Cash flow and profit—these are commercial metrics
 - Public metrics are *off the financial statements*



A few international models

- Central government support or leadership is key
- Full range of models: emphasis on residential FTTH
 - Government funding of public or private FTTH
 - Government financing of private FTTH
 - Central government funding of institutional fiber (Ireland)



An intriguing model: Amsterdam, New Zealand

- Government role is creation, financing, infrastructure owner (or partial owner)
- Private construction, management, and operation of the network; private service provision
- Openness at layers 0 and 2
- New Zealand: government is reimbursed as operator passes neighborhoods and can realize cash-flow