



# Broadband update

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DELTA COUNTY ECONOMIC DEVELOPMENT

# DMEA Broadband



- ▶ In 2015, at the board's request, DMEA staff created a detailed business case for a FTTX ISP business
- ▶ DMEA Board voted to move forward with a FTTX ISP business initiative on 12/29/15
- ▶ DMEA also working closely with Region 10 on the DOLA funded open access middle mile network

# DMEA Broadband

## ▶ DMEA FTTX Broadband Offering

- ▶ Fiber to the home & business at up to 1 Gbps
- ▶ Ultimately will bring service to all DMEA members in Delta and Montrose counties (30,000+ members)
- ▶ Triple Play offering (Internet, TV and Phone), as a bundle or individually
- ▶ High quality service from a long term local and trusted service provider
- ▶ To be priced VERY competitively
- ▶ Build out will be incremental in phases
- ▶ Will not effect electric rates

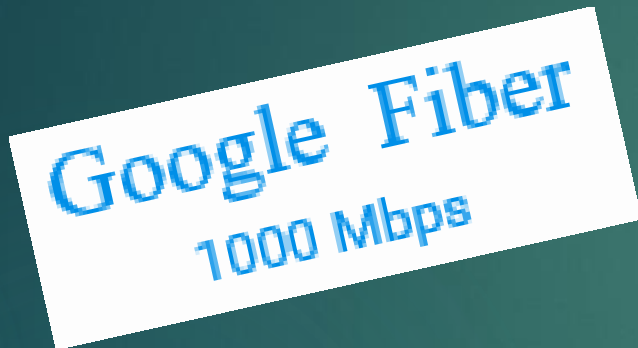
# DMEA Broadband

## ▶ Current Status

- ▶ Phase 1 coverage defined for Montrose, Orchard City and Paonia
- ▶ Plan is to have the first subscribers in service by the end of this year
- ▶ Web based sign up approach to be used
- ▶ Each build out will require a set take-rate of pre-signups prior to construction
- ▶ Marketing campaign and first round of sign-ups will launch this summer
- ▶ First subscribers in service by end of year
- ▶ Follow on phases to be announced after Phase 1 is in flight

# Why Gigabit rate fiber optics?

- ▶ Fiber is the **GOLD STANDARD** of advanced broadband networks



**100% Fiber  
turns Possibilities  
into Potential.**

Chattanooga's community-owned electric utility EPB is installing a 100% fiber to the premises network. Built to run America's first true Smart Grid and offer residential high speed Internet, video and telephone services, the network was also built to empower our community in new ways.



<http://www.chattanoogaigig.com/>



# From Chattanooga's Fiber website

## An open platform for creating transformative products and services.

We have built an expansive, powerful, 100% fiber network. But the power isn't in the platform. The real power is in how we use it.

Our infrastructure spurs research and development of new technologies right here in the United States, and preserves American jobs.

This is the ultimate tool for entrepreneurs. For established companies looking to become game-changers. For anyone needing a system that can help test and prove ideas.

Instead of trying to guess what products and services the market will demand, we are inviting talented people to use our network to work on complex challenges.

Not one size fits all, but one platform for mass innovation, accelerated R&D, broad testing and deep creativity.

<http://www.chattanoogaigig.com/>

# Gigabit rate fiber optics

## ▶ Advantages

- ▶ Most future proof of technologies (*leaves wireless, DSL & cable in the mud*)
- ▶ Very Long lifetime
- ▶ Upgradable – just change the electronics on the ends
- ▶ Synergistic with
  - ▶ **SMARTGrid** – see: <http://www.whatissmartgrid.org/>
  - ▶ **SMARTCities** – see: <http://smartcitiescouncil.com/>
  - ▶ **Internet of Things (IoT)** – see: <http://www.pewinternet.org/2014/05/14/internet-of-things/>

# Broadband Use

- Increased efficiency/productivity/processes
- Reduced transaction costs, optimize supply chain
- Acceleration of innovation
- Maximizes reach of labor, raw materials and consumers.
- Telemedicine
- E-learning
- Growth in service industries.
- Entertainment - yes downloading Netflix .....
- Impact to different industries differently
  - Substitution for less productive workers - negative impact
  - Net positive but redistribute between sectors.



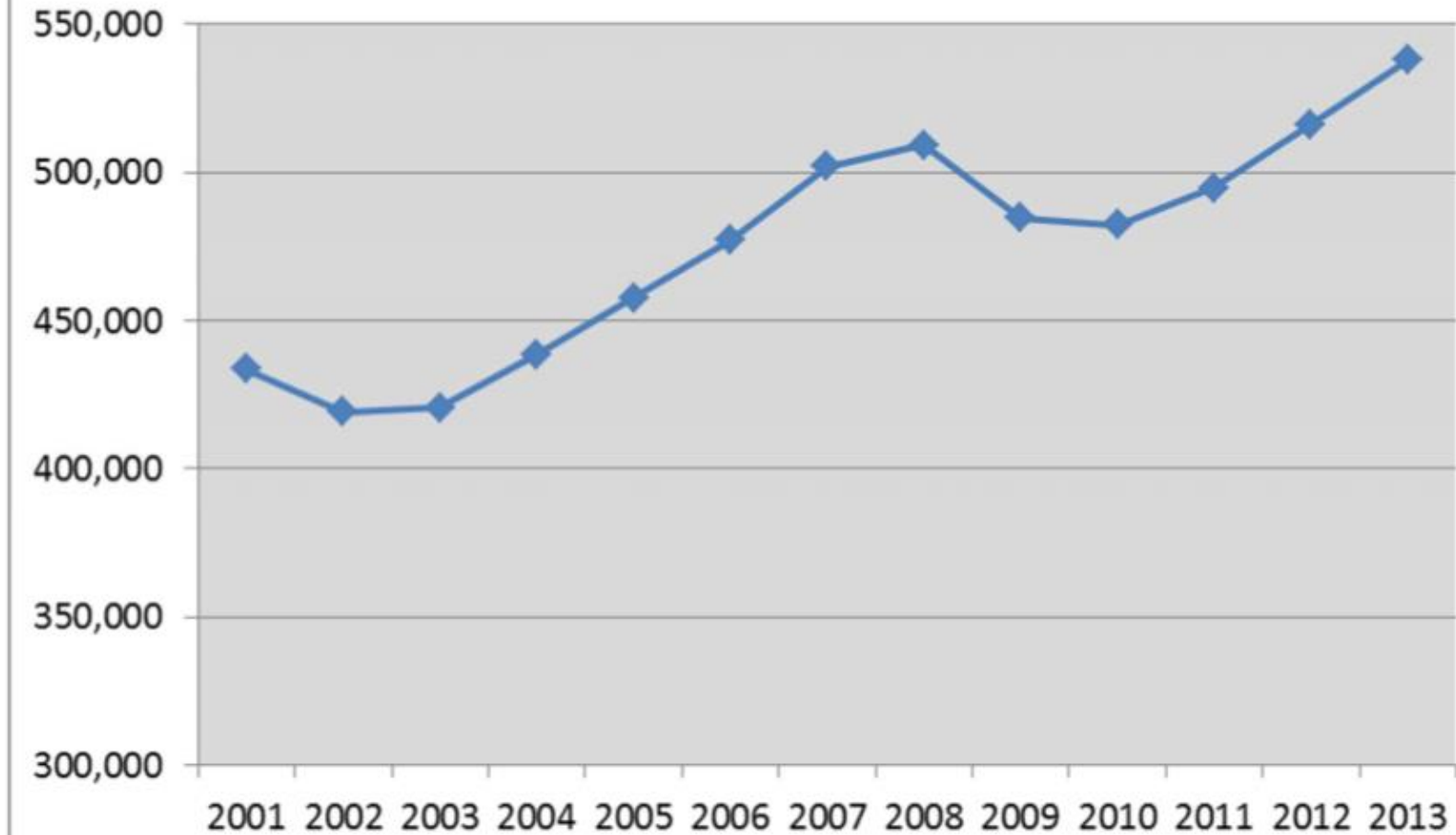


# *What is the Economic Impact?*

- **Broadband Use**
  - 1% point increase in Broadband penetration leads to .2 to .3% increase in employment. (Crandall et al. 2007)
  - For Colorado with estimate would be approximately 9,000 jobs for every 1% increase.
  - 10% increase in broadband availability produced a 0.7% decrease in the unemployment rate. (Crandall and Singer)
  - Research varies but most studies conclude that broadband penetration has an impact on GDP from .25 to 1.38 percent for every 10 percent increase in penetration (ITU, 2012)



## Growth in Broadband Connected Industry Employment, Colorado



The “Internet of Things”

or

IOT!

# “Internet of Things”

## ▶ What is it

▶ *A connected world where devices, people and everyday things can interact to make life easier*

## ▶ Enabled by:

- ▶ Cheap hardware
- ▶ Fast broadband networks
- ▶ Wireless connectivity
- ▶ The “Cloud”



# “Internet of Things”

## ▶ What Can it Do?

- ▶ *A connected world where devices, people and everyday things can interact to make life easier*
  - ▶ Health Monitoring
  - ▶ Home Security
  - ▶ Home Automation
  - ▶ Self Driving Cars
  - ▶ And much more.....



# An Example....Is this the next KILLER APP?



# Last Tuesday's Wall Street Journal (April 18<sup>th</sup>)

TECH


## Farmers Reap New Tools From Their Own High-Tech Tinkering

Robotic machinery, soil-monitoring apps are among homegrown inventions cropping up in the fields



*Looking at  
cybersecurity,  
privacy and  
your business  
in a whole  
new way*

Dwindling farm incomes and open-source software are inspiring homespun hackers, helping advance farming technology. In Manitoba, farmer Matt Reimer has created a tractor that drives itself. Photo: Tim Smith for The Wall Street Journal



In summary, we are  
preparing ourselves with  
the critical infrastructure of  
the future that will be key to  
our ongoing economic  
prosperity!