

The Road to a Gigabit: Are we there yet?

Seth Fearey

● Connected
Communities ●

CENIC GOBI Roundtable

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Getting on the Road

- Sources of the Guide
- Target User
- How the Guide is Organized
- Using the Guide
- Getting Started



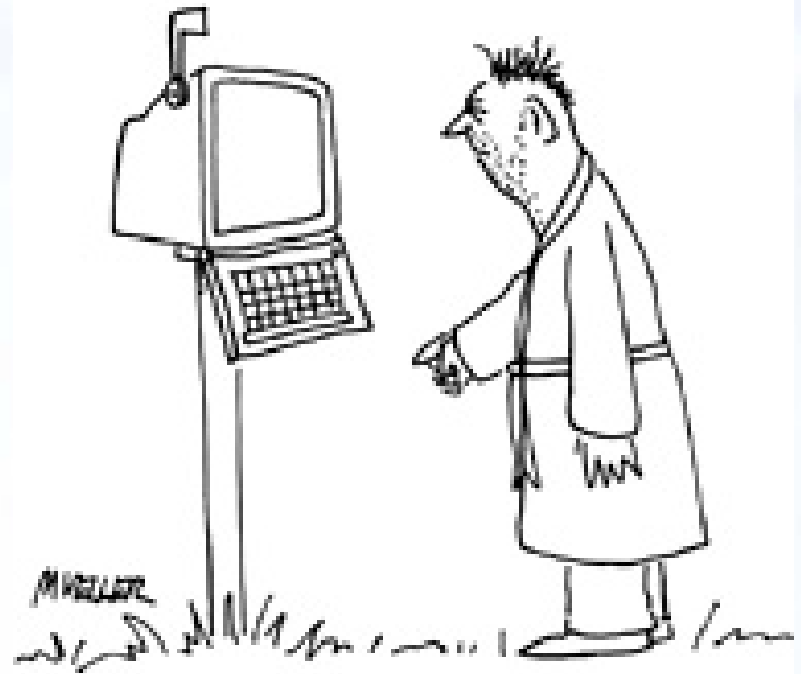
Are We There Yet?



- What will the networked world look like in 2010?
 - How will we use a gigabit?
 - What is a logical path?
-
- How will the roads differ for schools, libraries, businesses, government agencies, homes, rural communities?
 - Can we make the GOBI vision more accessible for non-techies and measure our progress?

The (Highly Distributed) Team

- Susan Estrada
- Mike Freeman
- Seth Fearey
- Charlie Kaylor
- Patrick Lanthier
- Michelle Speckler



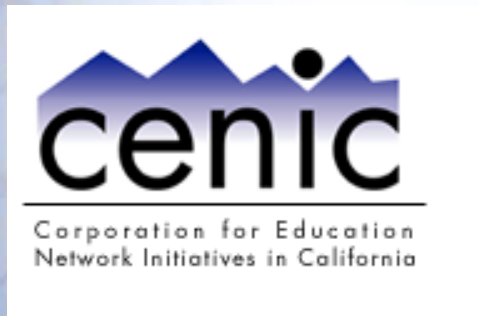
The Guide's Ancestry



Computer Systems Policy Project

- 1998 – Guide to Global E-Commerce Readiness
- Versions for developing nations
- 2000 – Living in a Networked World
- Translation into Japanese

CENIC Road to a Gigabit



Experience with the Guide

- Ashland, OR
- Santa Clarita, CA
- Mesa, AZ
- Chicago Neighborhoods
- 9 Counties in the San Joaquin Valley
- Lincoln, NB
- Lee County, FL
- Ann Arbor, MI
- Mariposa County, CA
- Sierra Vista, AZ
- Colorado Springs, CO
- Sonoma County, CA
- Mariposa County, CA
- At least 5 Cities in Japan
- Unknown others

The Guide can Make a Difference

- The Guide is effective at starting a dialogue. Maintaining the momentum is hard.
- When all of the economic sectors work together the community gains greater competitive advantage.
- A community-supported vision and strategy attracts tech-based companies, knowledge workers, and communications service providers.

The New Guide Targets the Same Types of Communities as the Old Guide

- Towns
- Cities
- Counties
- Regions
- Hard to use in very large cities.
- Not designed for states or nations.



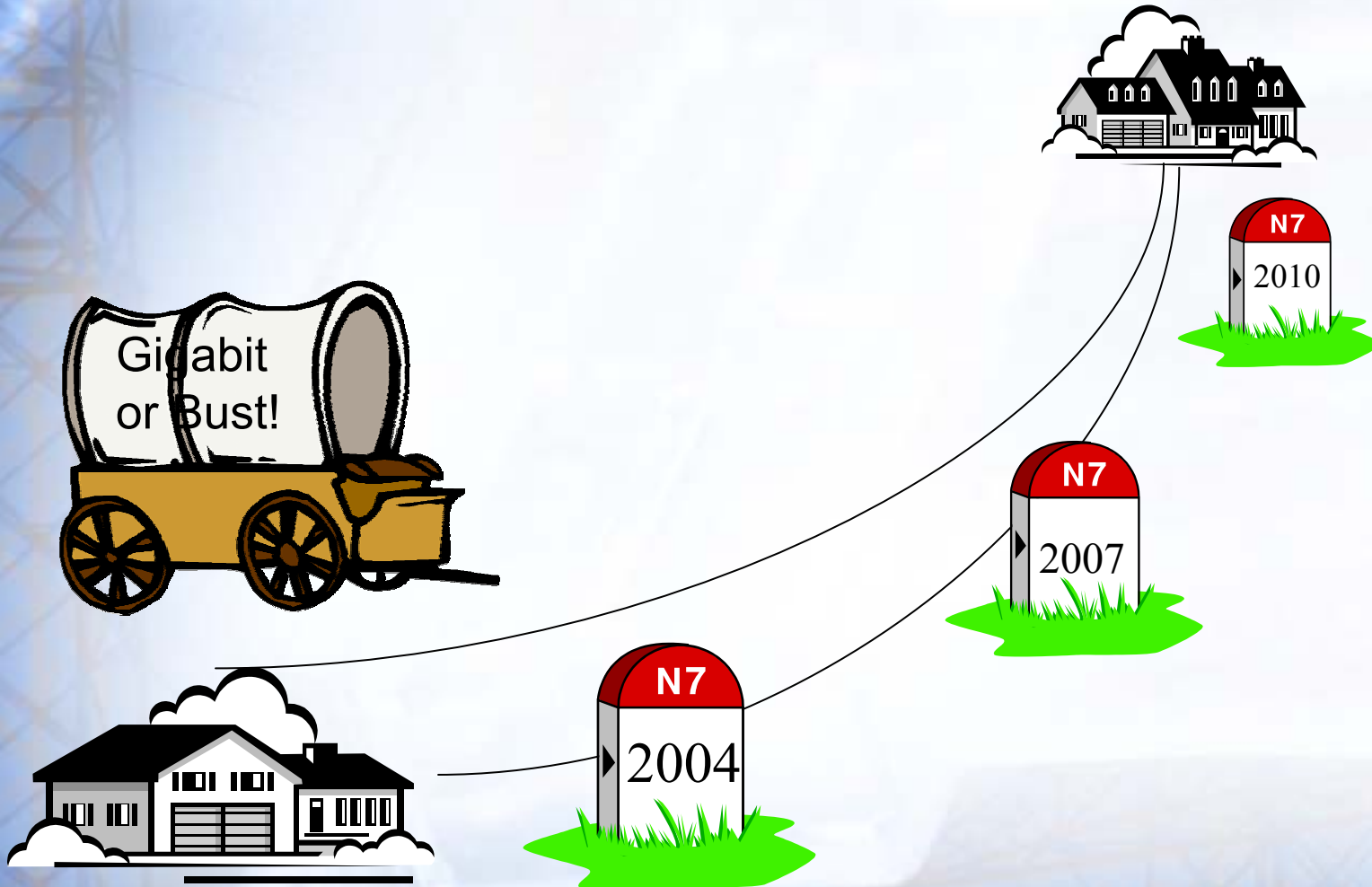
On the road to a **GIGABIT** **BROADBAND** Are we there yet?

A Self-Assessment Guide for Communities

INTERNET • EDUCATION • DISTANCE LEARNING • INTERNET TELEPHONY • MOVIES-ON-DEMAND • NOTIFICATION SERVICES • VIDEO-CONFERENCING • SECURITY VIDEO • HOME AUTOMATION • TELEMEDICINE • TIME-SHIFTED TV • MULTIPLAYER GAMING • BROADCAST TV • COMMUNITY INTRANET • POWER METERING • VOICE RESPONSE

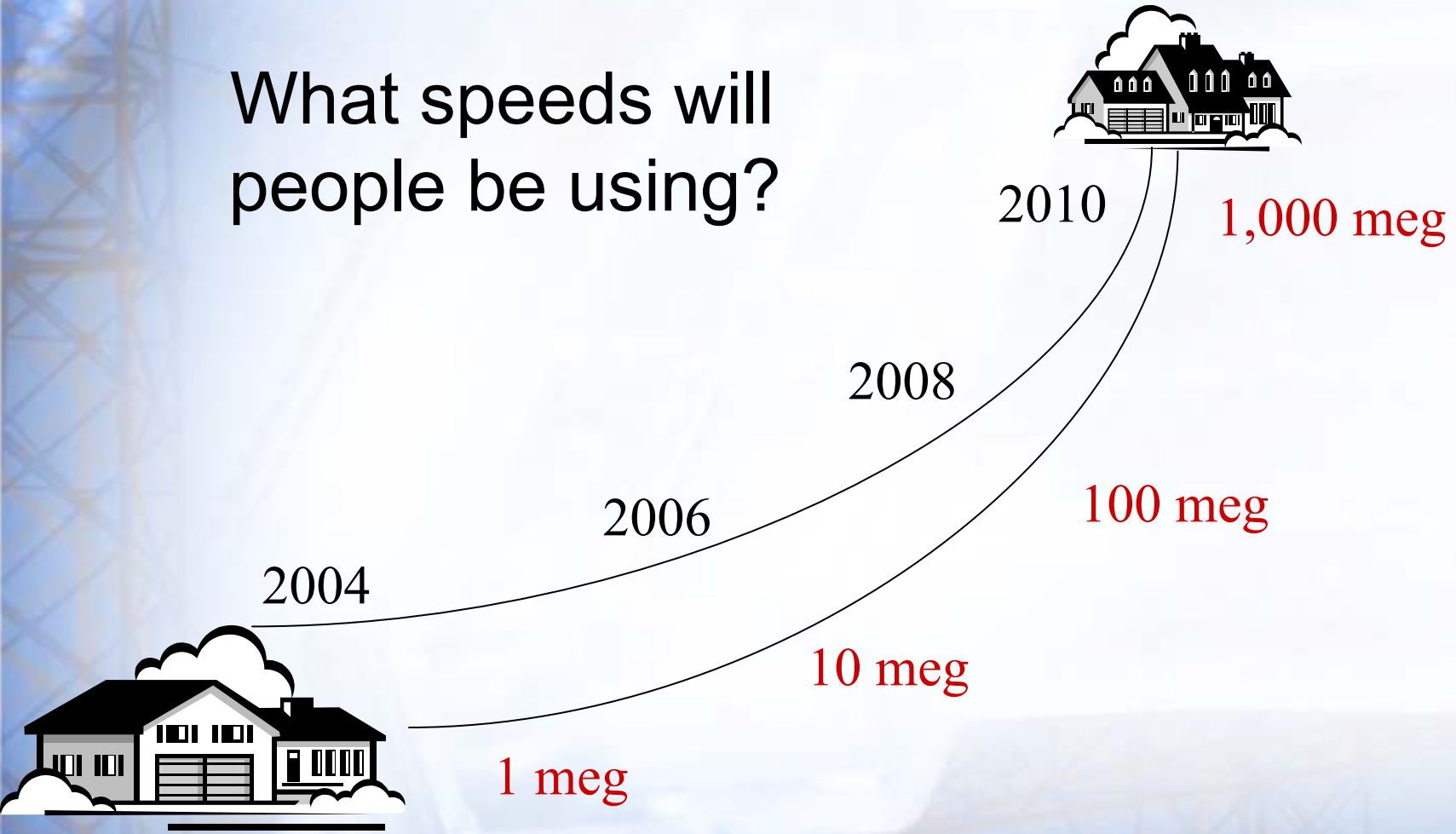


Structuring the Guide



Calibrating the Stages

What speeds will people be using?



The Milestones (Rows)

Stage 1	1 megabit
Stage 2	10 megabits
Stage 3	100 megabits
Stage 4	1,000 megabits

The Milestones (Rows)

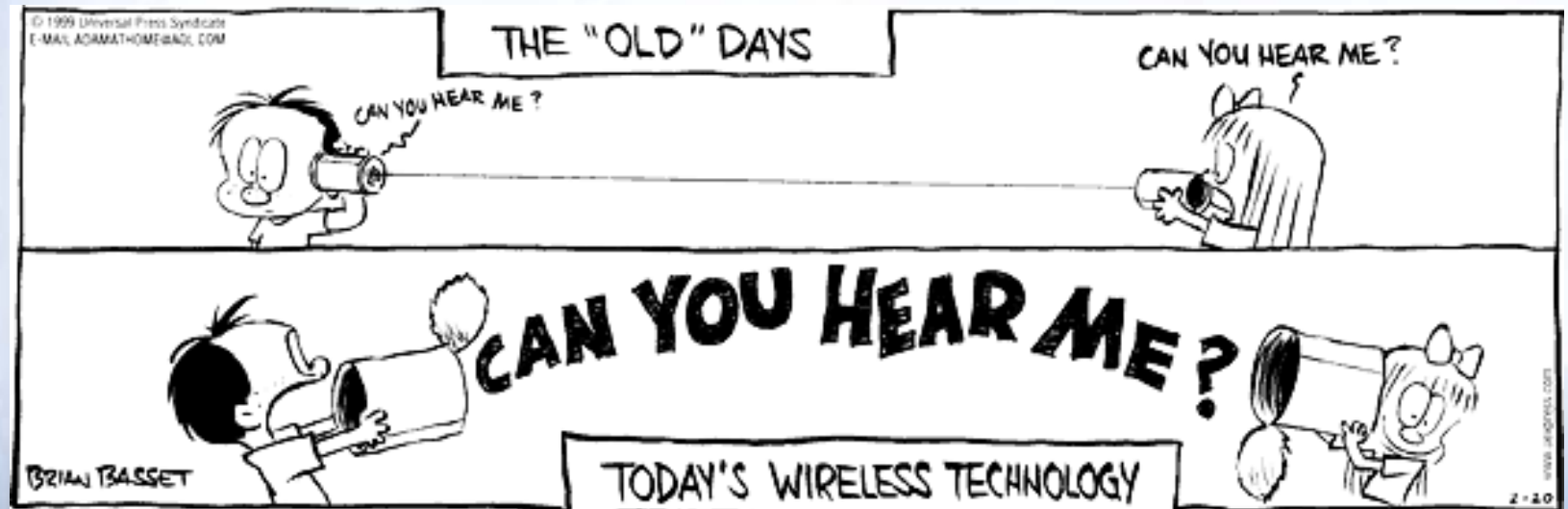
Stage 1	
Stage 2	Today in most urban settings
Stage 3	
Stage 4	2010 in most urban settings

What Will be Different When We Have a Gigabit Everywhere?

- Lots of video – video mail, video messaging, video conferencing, movies, “TV”, multi-player games ...
- Applications outsourcing
- “Grid” or distributed computing
- VoIP and successor technologies
- Many more appliances, from PDA equivalents, to cars, webcams, home entertainment systems, ...

What Will be Different When We Have a Gigabit Everywhere?

- Wireless everywhere
- Millions and millions of sensors
- *Assume the Network*



The Sectors

- Wired & Wireless Communications
- Local Government – Large & Small, Rural
- Hospitals and Clinics
- K-12 Schools & Higher Ed
- Libraries
- Business – Large & Small
- Community-Based Organizations
- The Home will be available on-line only

The Columns

- Wired and Wireless
 - Residential
 - Commercial
 - Quality of Service
- Other Sectors
 - The Network
 - Networked Places
 - Applications & Services
 - Leadership

Filling in the Cells



Small Business

	Network	Network Places	Apps & Services	Leadership
1	At least 5% have 1 meg to Net All have 10 meg LAN	At least 10% of employees have always-on at desk	At least 30% send or receive orders on-line	At least 20% see Net as essential to biz.
2	At least 20% have 1-10 meg 50% 100 meg LAN	At least 50% have always-on at desk	At least 40% of retail websites accept credit cards	At least 10% encourage on-line classes
3	At least 10% have 100 meg	At least 20% use VoIP	At least 10% outsource compute services	At least 40% allow telework
4	At least 50% have 100 meg and 20% 1 gig	At least 50% of computers have video cameras	At least 20% send & receive video mail	At least 20% outsource non-core functions

LIBRARIES

Public libraries play a vital role in most communities by providing every resident with the opportunity to receive instruction and use the Internet for free. Libraries are not open 24 hours a day, however, so sometimes there are lines of people waiting to use the computers. Some people have been able to start businesses because of Internet access in libraries, and many K-12 students have come to depend on access to libraries' computers to complete homework assignments.

The role of the Public Library in economic development is also changing. Successful communities today are harnessing the collaborative strength of business, government, higher education, and public services agencies into a powerful collaborative model for economic development.

Today, we will be assessing the public library sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the library sector.

This assessment tool is designed to quickly assess where the community

stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

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STAGE

THE NETWORK

1

Every public library has a one-mbps or faster (DSL or cable modem) connection to the Internet.

2

At least 50 percent of public libraries have a 1.0-mbps symmetrical connection to the Internet.
Wireless networks, such as WiFi, are available in some areas.

3

At least 50 percent of public libraries have a 1.0-mbps symmetrical connection to the Internet.
Wireless networks are available in many areas.

4

At least 50 percent of public libraries have a one-gbps symmetrical connection to the Internet.
High-speed wireless is widely available.

MY
RANK

TODAY _____ 1 YR. GOAL _____

NETWORKED PLACES

Public libraries provide several computers with free access to the Internet.

There is rarely a more than a 5-minute wait to use the Internet-enabled computers.

Public libraries have added network ports or wireless networks and electrical outlets to carts.

Most public libraries offer patrons a 100 mbps or faster wireless network.

TODAY _____ 1 YR. GOAL _____

APPLICATIONS & SERVICES

Most libraries have a Web site with basic information about hours of operation and location.

At least 80 percent of libraries have catalogs online. Patrons may use the Internet to place books on hold and request books from other libraries in the library system. Patrons can search online databases from home, school or work. Libraries host live video feeds of public-interest events.

Patrons may review their accounts online and pay fines by credit card. Patrons can access the library online as a portal for other online information services.

Public libraries offer live video consultations. Public libraries allow patrons to borrow eBooks, movies and music over the Internet. Two-way videoconferencing is available to the general public.

TODAY _____ 1 YR. GOAL _____

LEADERSHIP

Libraries are the first to offer free access and instruction in the use of the Internet.

The library research desk is an online community resource. Staff training on new technologies is a priority at most libraries. Librarians are using consortia to take advantage of e-rate and other discounts. Library policies reflect appropriate filtering requirements.

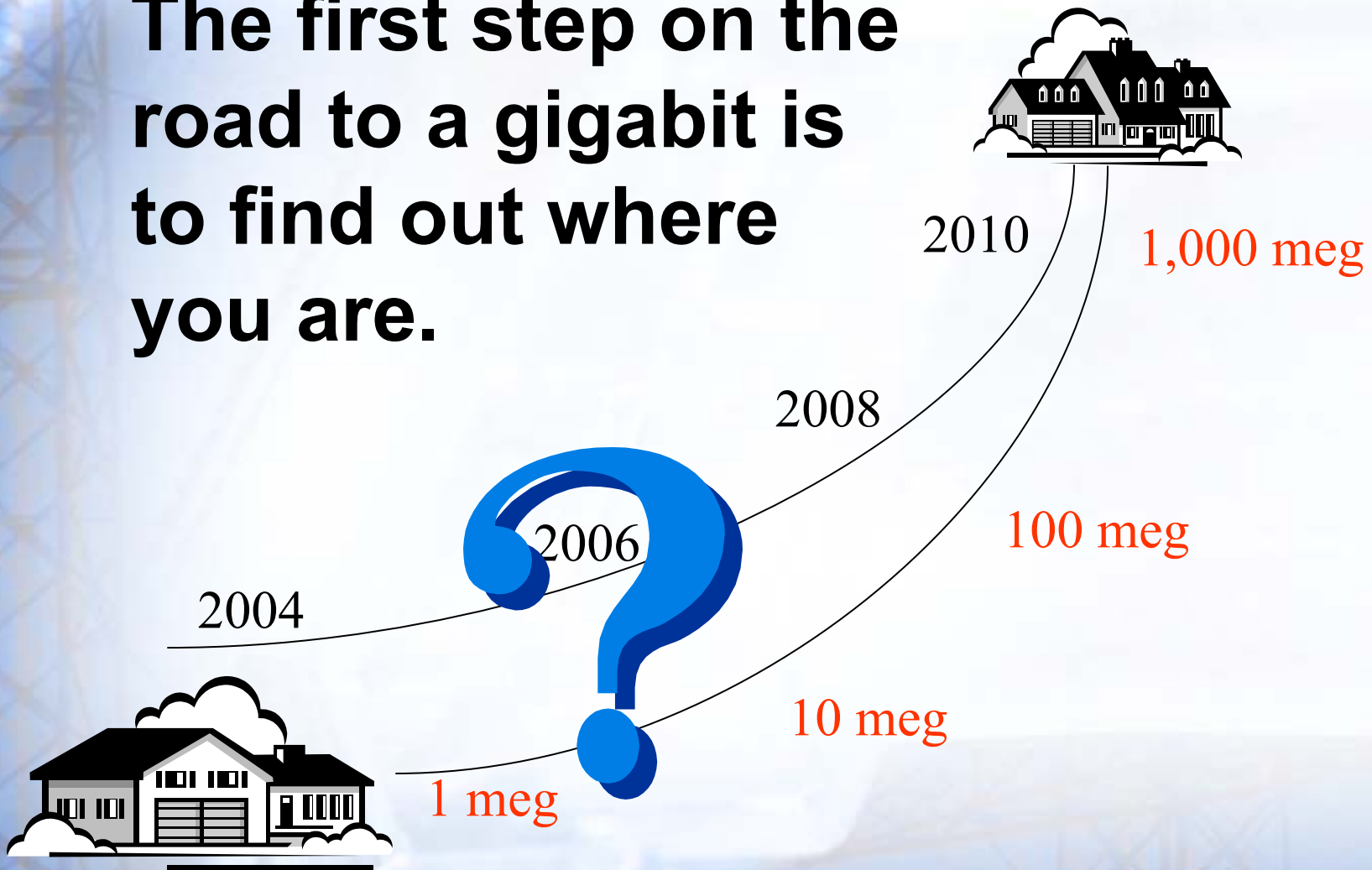
Libraries help the community understand copyright issues and how to protect privacy on the Internet. New hires are required to have experience using new technology. Librarians take responsibility for continuing e-rate and other discounts.

Libraries continue to upgrade their facilities to offer the community the next-generation in technology, services and training. Librarians actively promote ICT literacy to drive positive impacts on economic performance, skills and innovation in the community.

TODAY _____ 1 YR. GOAL _____

Using the Guide

The first step on the road to a gigabit is to find out where you are.



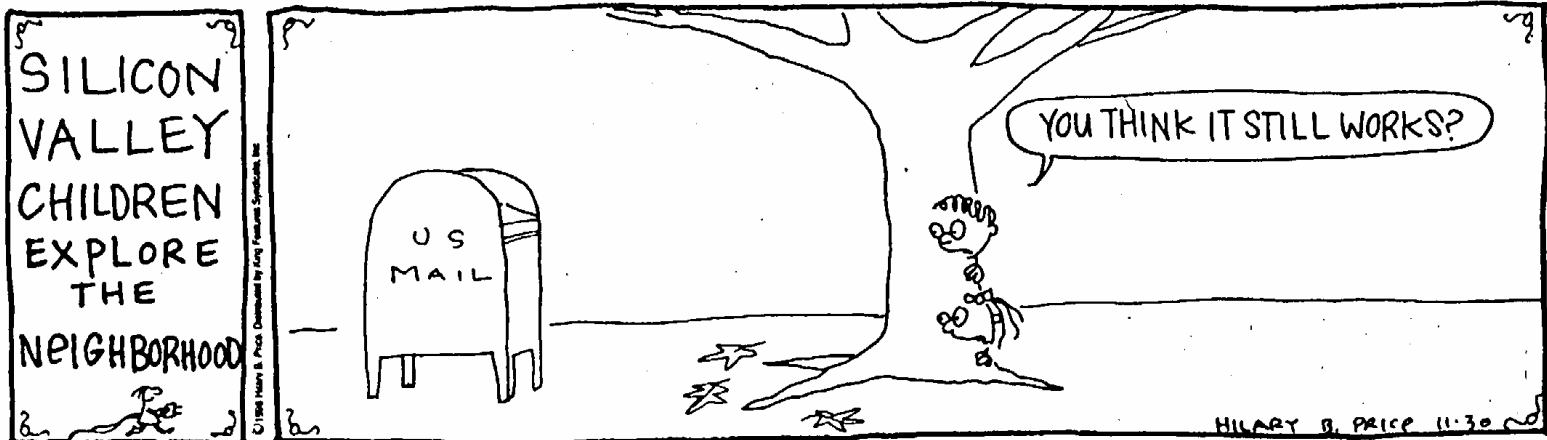
Using the Guide

- Organize community workshops
- Choose your current stage
 - Pluses and minuses allowed
- Set a 12 – 18 month goal
- Summarize and share the results

Example Action Initiatives

- Smart Valley
 - Smart Health
 - Wireless Campus
 - Wireless Cities
 - Museums Without Walls
- San Mateo County's LawNet
- Wireless Libraries

RHYMES WITH ORANGE • Hilary B. Price



Practice Session

- Form a group of 3-4
- Pick a sector
- Discuss where your community stands for the **Applications & Services** column
- When will you get to the next stage?
- **5 minutes!**
- Does the guide make sense?

Using the Guide in Your Community

- Get the support of a community organization
 - City or county government executive
 - Economic development agency
 - Chamber of Commerce
- Organize a half-day workshop.
- Report on the results to the local media.
- Or hire a consultant!

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successful community assessment.

What is the Purpose of this Guide?

- ◆ [What Is this Guide For?](#)
- ◆ [Why Should I Do This?](#)
- ◆ [Importance of Assessment](#)
- ◆ [Using the Guide](#)

Download the Guide




A note on printing the guide: The guide is designed to be printed double-sided and bound on the left in the landscape format. Either a comb, spiral or stapled binding will work.

- ◆ [Entire guide](#) 
- ◆ [Getting Started](#) 
- ◆ [Using the Guide](#) 
- ◆ [Individual Sectors](#)

Workshop Planning Materials

- ◆ [Assessment Checklist](#)
- ◆ [Managing the Invitation Process](#)
- ◆ [Invitation List Guidelines](#)

Workshop Materials

- ◆ [Sample Agenda](#) 
- ◆ [Guidelines for Local Perspective Presentations](#)
- ◆ [Assessment Checklist](#)
- ◆ [Meeting Sign-in Sheet](#) 
- ◆ [Team Spokesperson Worksheet](#) 
- ◆ [Steering Committee Role/Responsibilities During the Workshop](#)

Resources

- ◆ [Data Performance Comparison Table](#) 

Next Steps

- The Guide is available for download now.
- **CENIC is seeking sponsors to support printing of a hardcopy version.**



Use the Guide To

- Make the vision of one gigabit more personally meaningful to others.
- Measure our progress toward one gigabit by 2010.
- Stimulate discussion and help your community create a plan of action for connecting to compete in a one gigabit world.
- Encourage local, state and national policy makers to play a leadership role in helping us achieve the vision of one gigabit everywhere by 2010.

For More Information

- <http://www.cenic.org/GB/studies/crg.htm>
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