

Think Beyond Broadband™

The logo features the letters 'ISIMS' in a large, bold, black serif font. A thick, blue, horizontal swoosh with a slight curve passes behind the letters, starting from the left and ending on the right. The swoosh has a slight gradient and a soft glow effect.

ISIMS

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THINK BEYOND BROADBAND™

A **Telecommunications Ecosystem Architectural** firm, pioneering the design and deployment of fiber optic networks for future-generation data services, video & entertainment, voice, utility monitoring & control, public safety, education, city, and community networking. We focus on **comprehensive communication planning**, which includes **financial modeling, business planning, strategic, infrastructure, and communications master planning** for municipalities, developers and utilities. Our designs and installations of active fiber optic networks enable and empower individuals and communities, foster economic development and enhance competitiveness in the regional, national and global economy.

## Hawaii Broadband Task Force

The working vision statement for the Task Force is:

*"Hawaii understands that advanced broadband is essential infrastructure for the innovation economy and knowledge society of the 21st century. As a result of proactive policy initiatives, Hawaii residents and businesses throughout the State have access to advanced broadband services of the caliber and at the pricing available in the leading developed nations of the world."*

The task force is now working to make this vision a reality for the people of Hawaii.

## Hawaii Broadband Task Force

- Remove barriers to broadband access.
- Gain wider access to public rights-of-way.
- Identify opportunities for increased broadband development and adoption.
- Identify opportunities for increased broadband development and adoption, of very high speed broadband services.
- Enable the creation and development of new advanced communication technologies in Hawaii.

# A Communications Plan Insures...

- Appropriate application of resources
- Efficient design, deployment, and operations strategies
- Improved efficiency and operations
- Generation of revenue from new sources
- Provides new opportunities for economic development
- That networking capabilities are expandable and scalable far into the future
- That connectivity is dynamically flexible and can
- Provides many services to many groups
- That the community has a real voice in what happens
- That the your network is both economically and technologically sustainable
- Integrated Usage Models
- Application Services Tools
- Citizen Satisfaction
- Digital Divide
- Economic Vitality
- Private / Public Partnership

# Communications Master Plan

## Phase 1

- **Documents and Existing Plans Review**
- **Infrastructure Assessment**
- **Service Assessment**
- **Economic, Demographic and Market Summary**
- **Trans-Sectoral Analysis**
- **SWOT Assessment**
- **Project Vision and Strategic Objectives**
- **Preliminary Financial/Business Modeling**
- **Stakeholders Summit**
- **Preliminary Schedule and Milestones**

# Communications Master Plan

## Phase 2

- **Implementation Strategies**
- **Advanced Service Offerings**
- **Technology Solutions Review**
- **Vendor Evaluations**
- **Management Structures**
- **Financing**
- **Updated Financial/Business Model**
- **Updated Schedule and Milestones**

## Hawaii Broadband Task Force

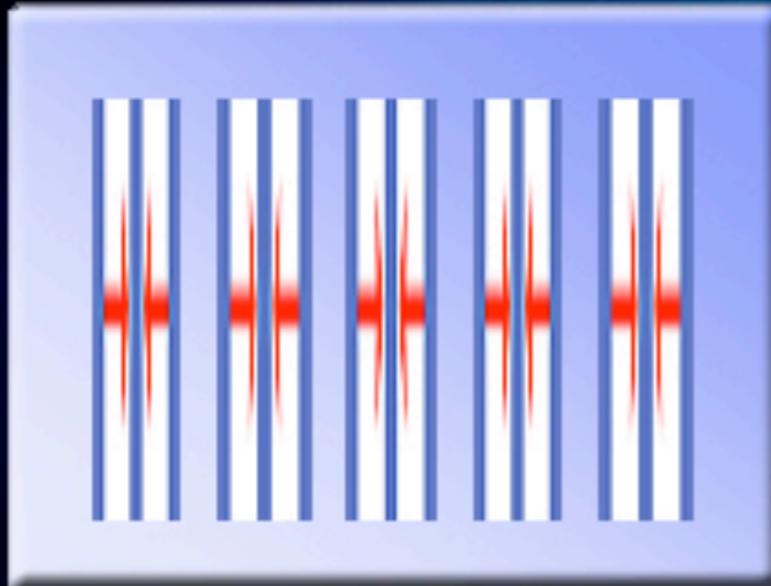
- Enable the creation and development of new advanced communication technologies in Hawaii.

This will be possible with the advent of new markets in the developing arenas of Environmental, Healthcare, Education, Public Safety, Commercial, Residential and Local, State and Federal Government.

The new market is to enable the Local Needs i.e. the Community Needs - Neighborhood Needs - Translates to developers and new work forces.

## Current Practice

Driving common processes across lines of business was critical first step

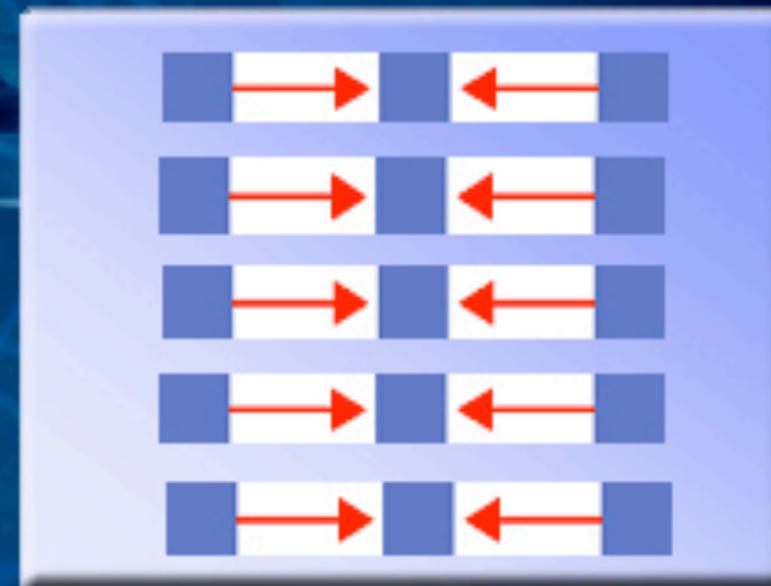


- \*Planning
- \*Public Works
- \*Public Safety
- \*Procurement
- \*Information Technology

Paradigm Shift

## New Paradigm

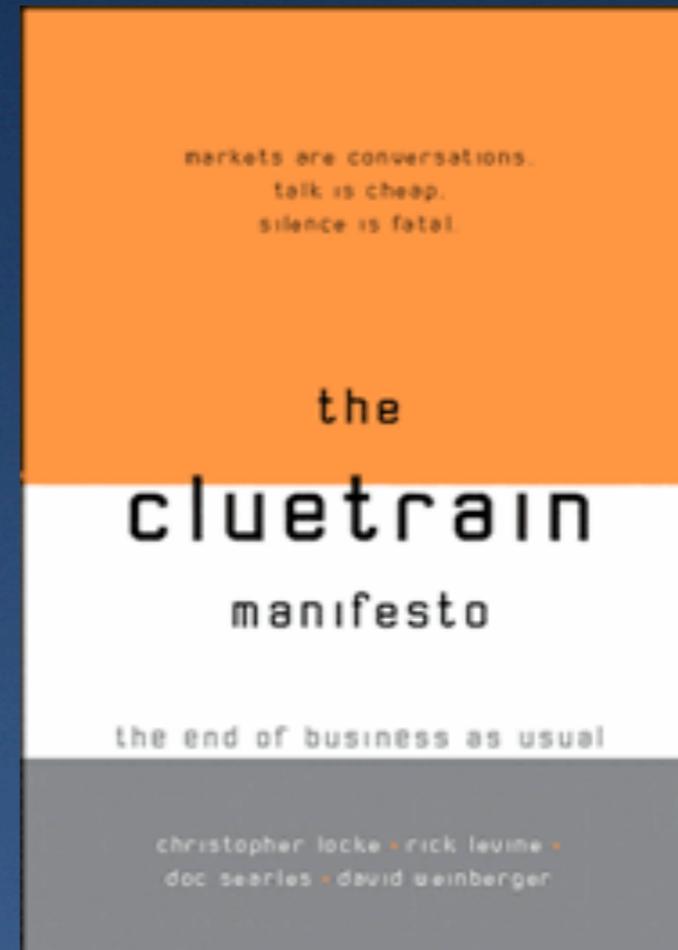
Enabling community e-business requires end-to-end integration across the value net



- \*Customers
- \*Partners
- \*Suppliers
- \*Employees / Residents

“Communities will make more money 'because' of infrastructure than 'with' infrastructure.” Doc Searls

Doc Searls is a co-author of *The Cluetrain Manifesto: The End of Business as Usual*, a New York Times, Wall Street Journal, Business Week, Borders Books and Amazon.com bestseller.

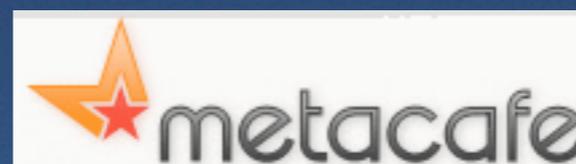
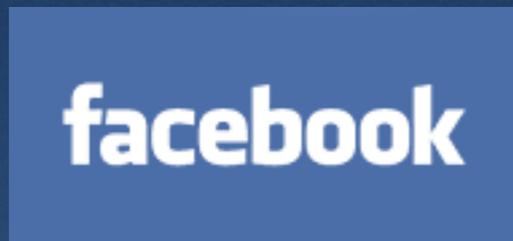
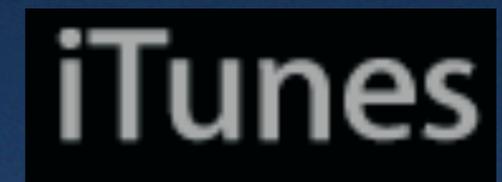


# Ecosystem

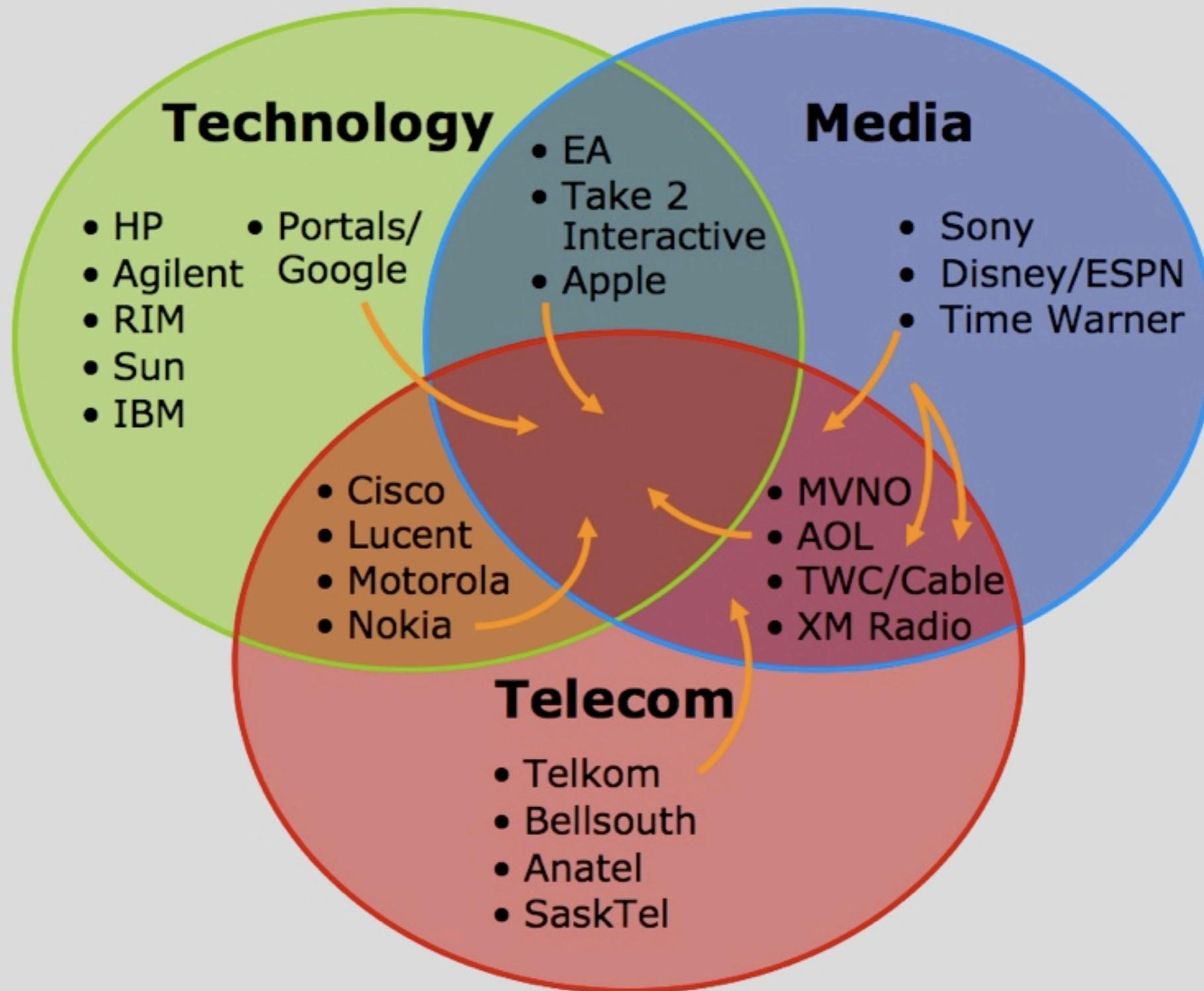
A biological community of interacting organisms and their physical environment.

# Economic Development

# What is the EDGE?



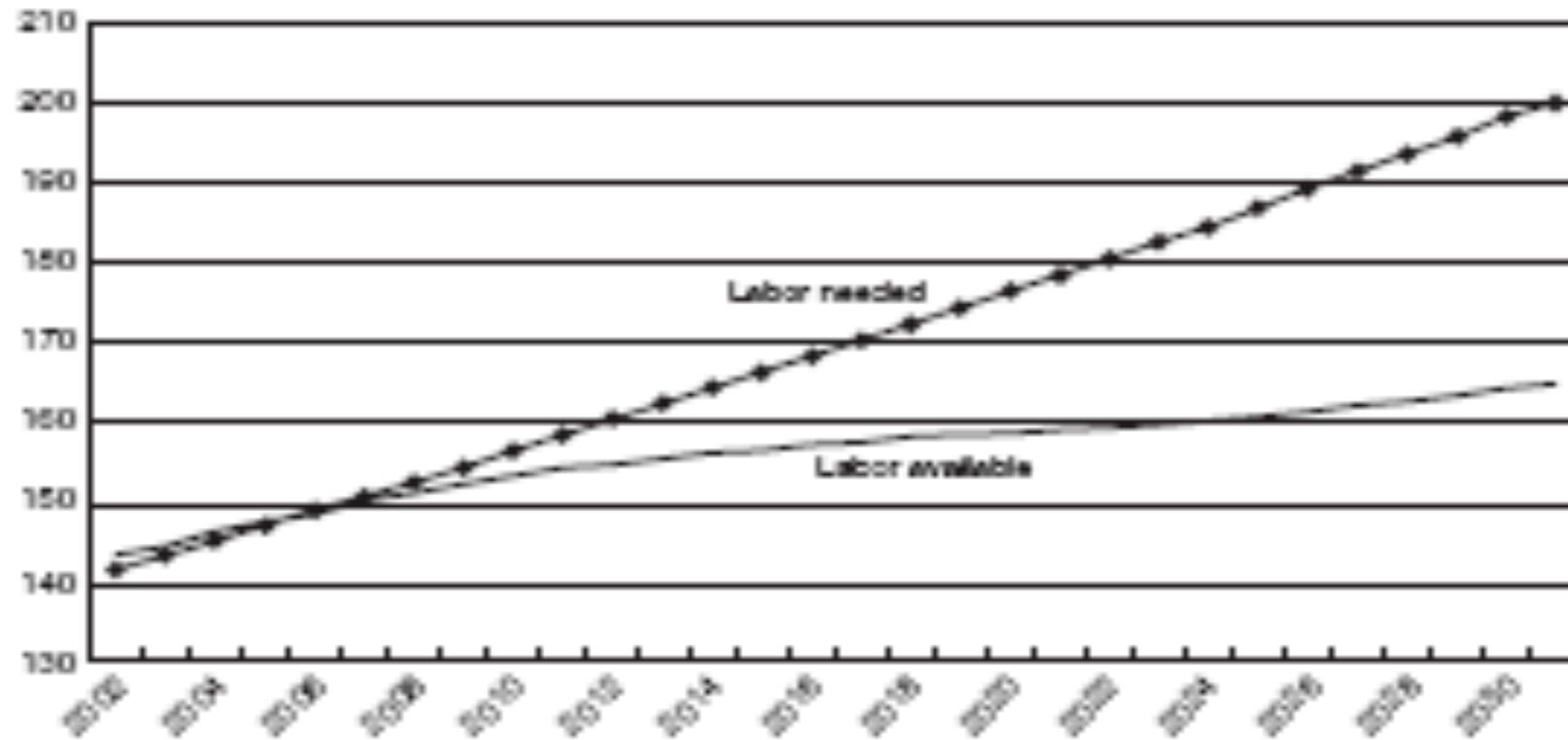
# Convergence



**FIGURE 1-7**

**Labor force needed to maintain economic growth**

(in millions)

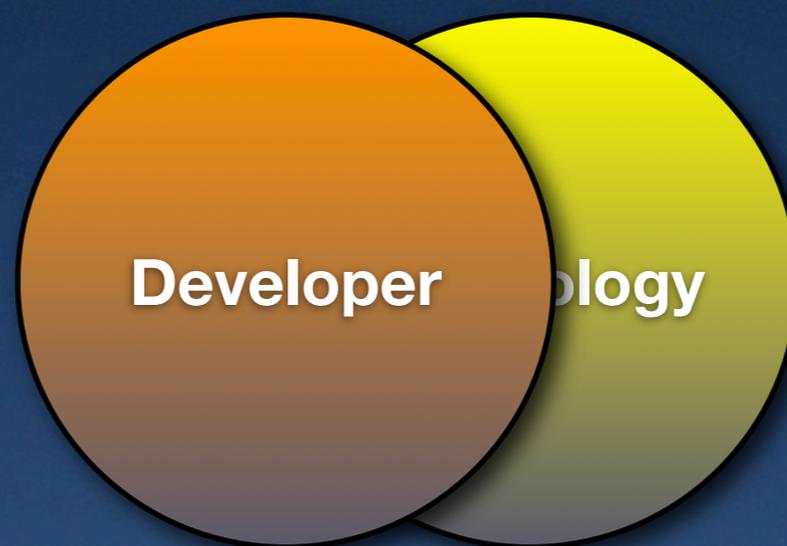


Source: Employment Policy Foundation analysis and projections of Census, Bureau of Labor Statistics, and Bureau of Economic Analysis data.

# **New Ecosystem**

**Developers will be the leaders in establishing the locations and configuration of the worlds new economic centers!**

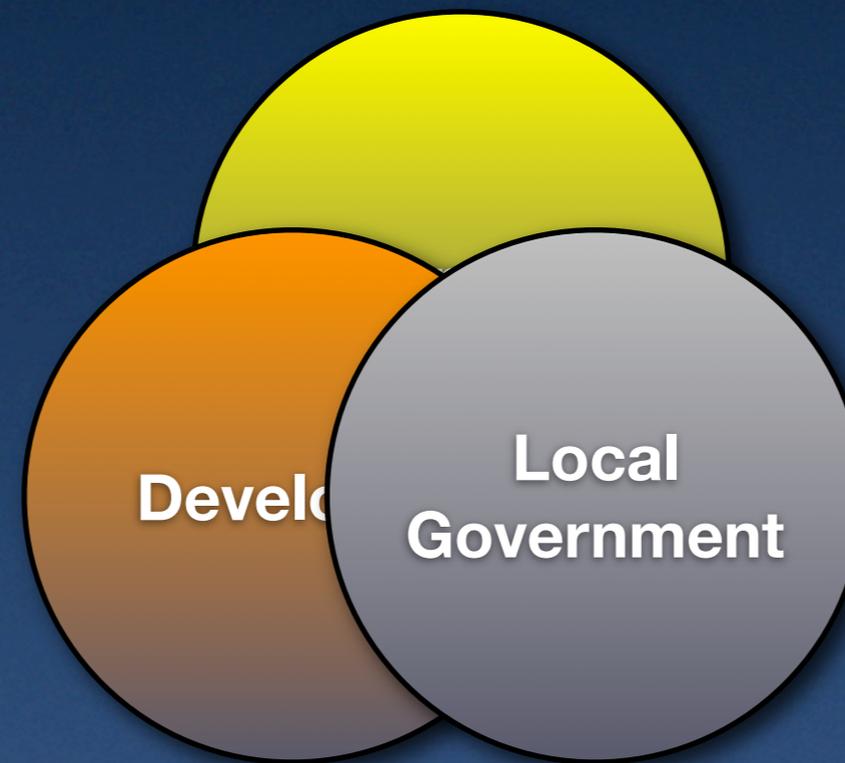
# Traditional Economic Development



$$2^2$$

$$2 \times 2 = 4$$

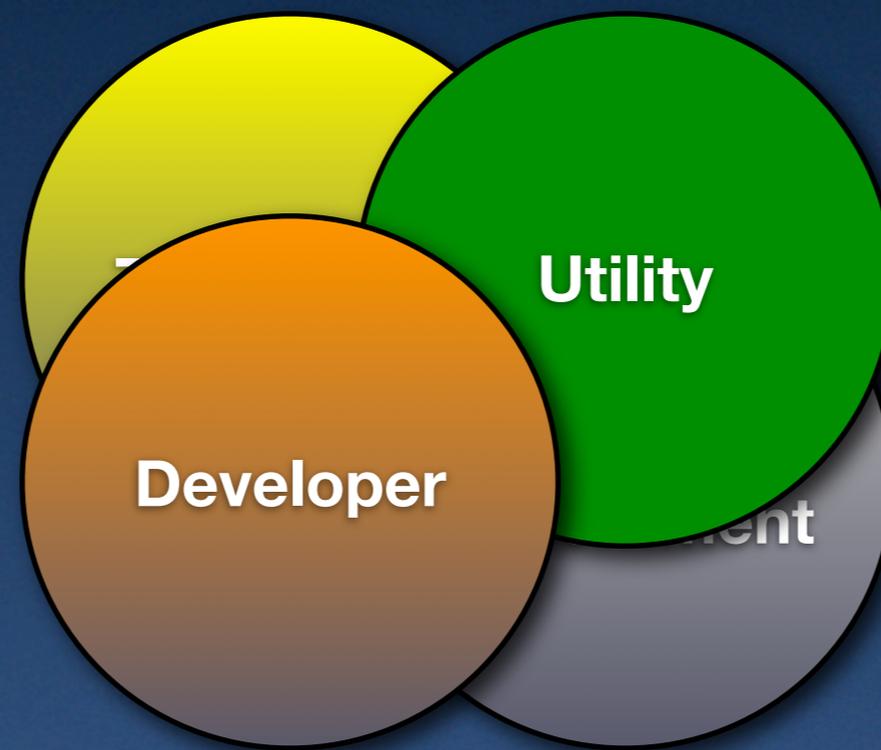
# New Economic Development Possibilities



$$3^3$$

$$3 \times 3 \times 3 = 27$$

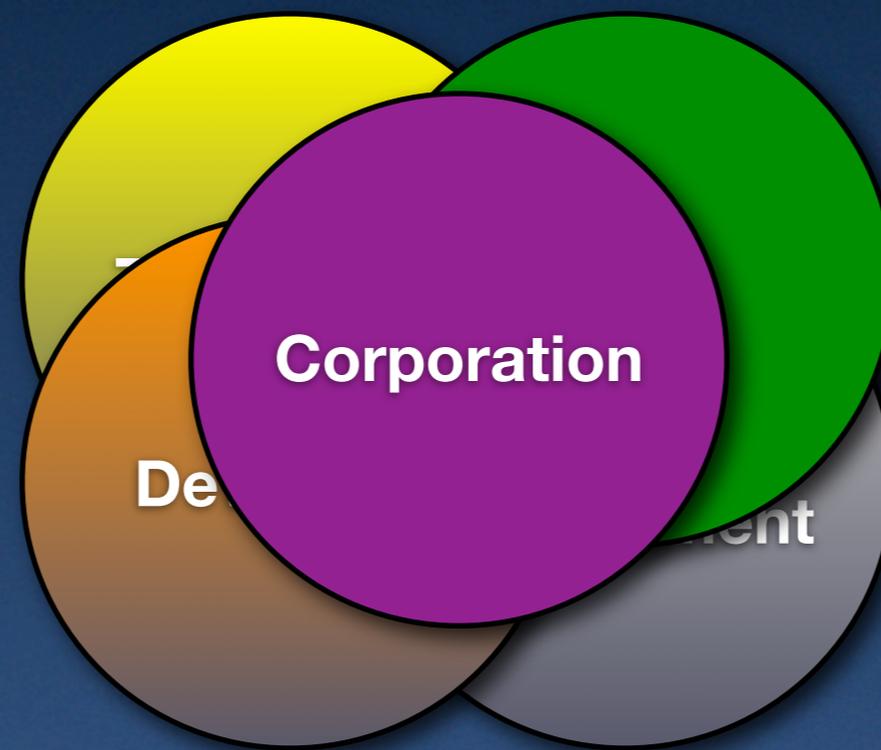
# Expanded Possibilities For Economic Development



$$4^4$$

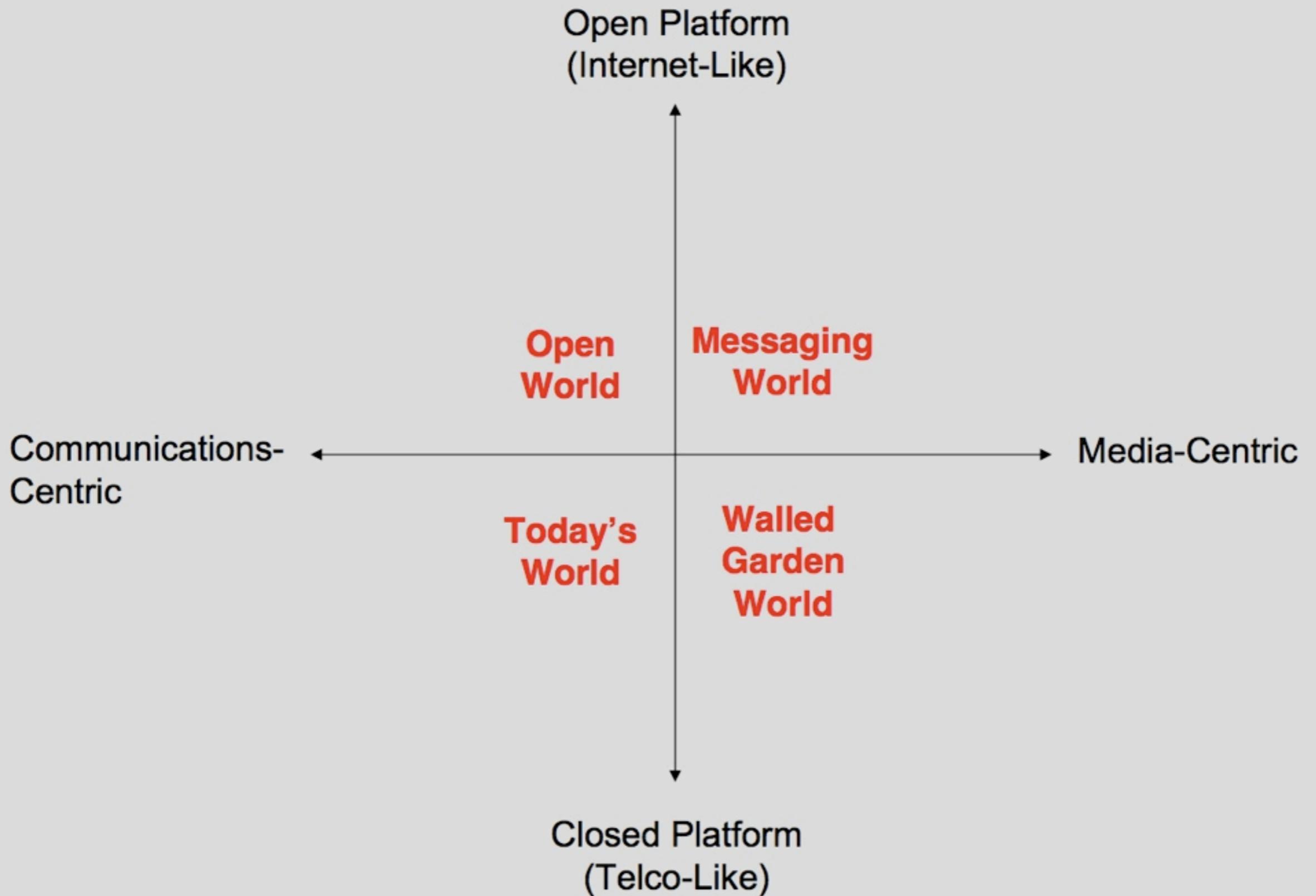
$$4 \times 4 \times 4 \times 4 = 256$$

# Expanded Possibilities For Economic Development



$$5^5$$

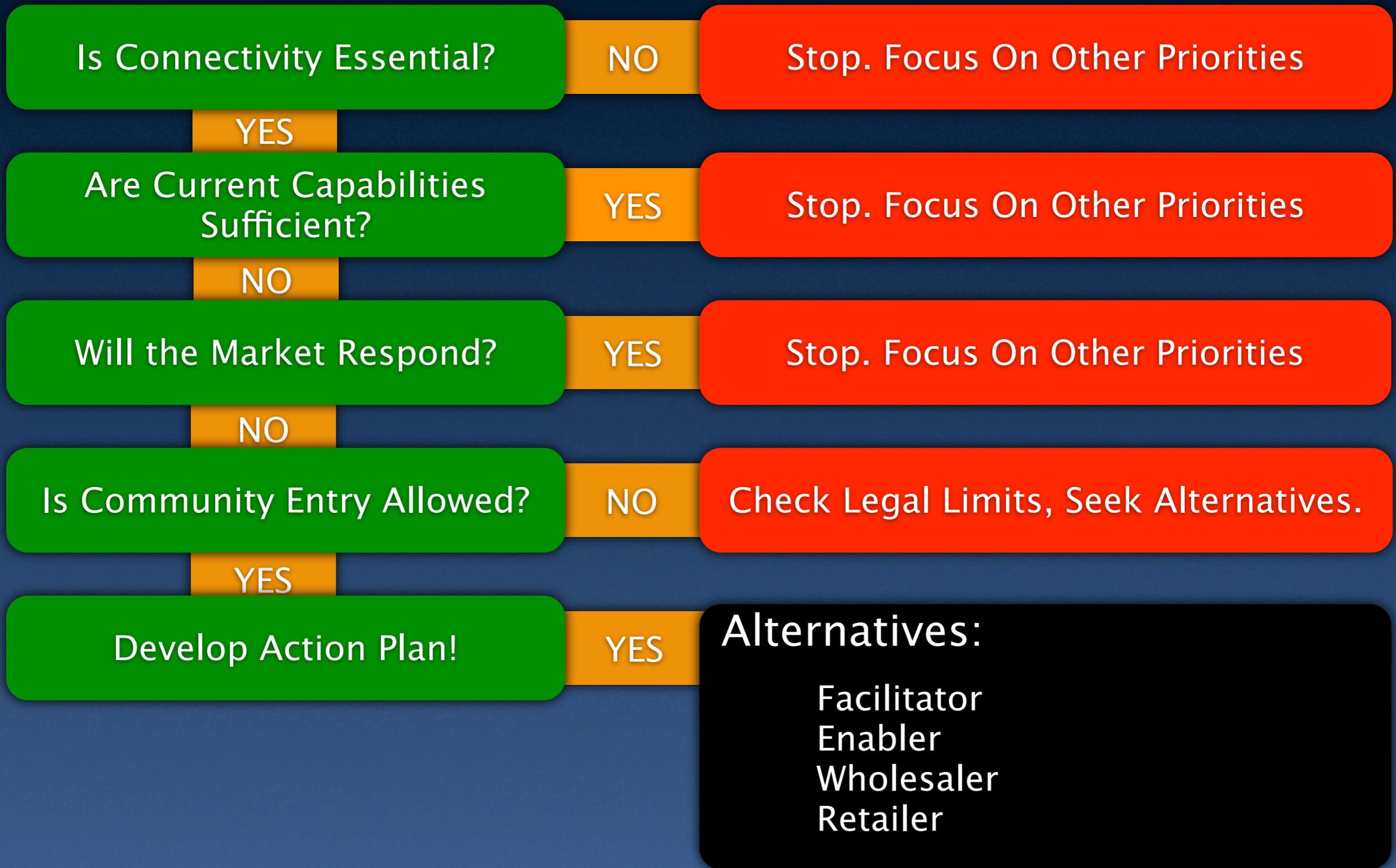
$$5 \times 5 \times 5 \times 5 \times 5 = 3125$$



## Hawaii Broadband Task Force

- Identify opportunities for increased broadband development and adoption.

This means Think Beyond Broadband - Think about Connectivity as a whole.



## Roles

- Facilitator
  - Encourages private entities to increase public services
- Enabler
  - Using its government authority to assist private sector partners to improve services
    - Pre-approved zoning
    - Streamlined permitting
    - Building code, construction and engineering standards
      - Requires fiber-to-the-home, business or premise
      - Requires smart building construction
      - Requires conduit be placed in the public right of way
- Service Wholesaler
  - Constructs fiber and/or wireless network and provides access to private sector partners
- Service Retailer
  - Constructs fiber and/or wireless network and provides services

# Think Beyond Broadband™

# Community Based Networking

# Think Beyond Broadband™



# What Can Community Based Networks Enable?

- Adoption of Standards Based Networks
- Minimum Residential Requirements
- Minimum Commercial Requirements
- Right of Way Requirements
- Better options for Service Providers
- Innovation of Applications and Services

# Infrastructure

**Layers 0, 1, 2, and 3**

# Infrastructure

The basic physical and organizational structures and facilities needed for the operation of a society or enterprise.

The greatest cultures in history built infrastructure for the good of the public by enabling long term commerce.

**Microsoft**

people  ready

people  ready

**“When your infrastructure  
is ready for anything you  
people are ready for  
anything.”**

Microsoft, TV Commercial October 2006

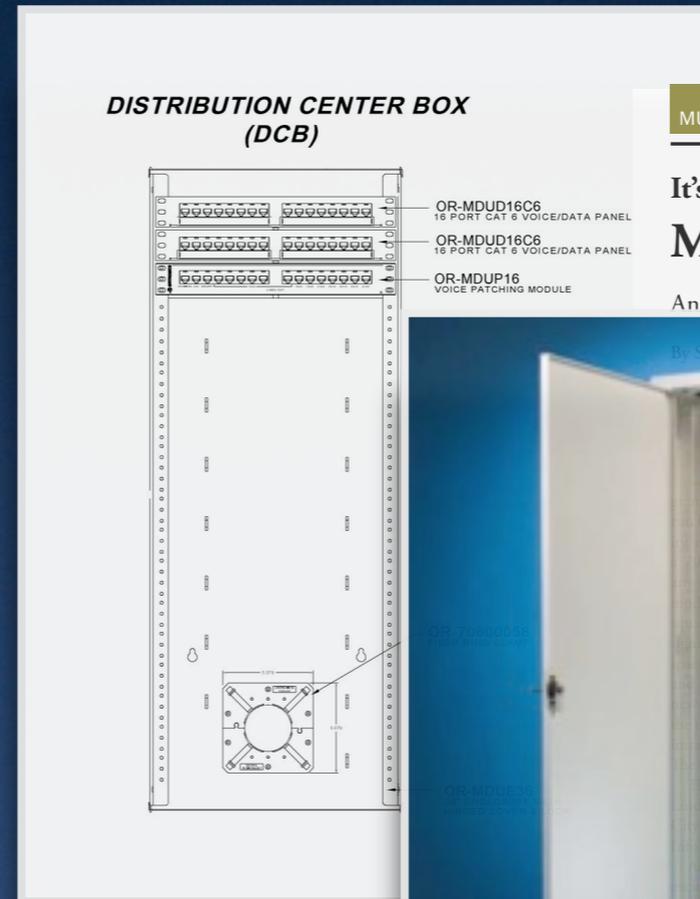
# Community Infrastructure

- Right of Way
- Trench and Micro-Trench
- Service Easements
- Multi purpose wireless
- Structured wiring
- Multi purpose fiber
  - Municipal
  - Commercial
  - Residential
- Electronics
- Physical space for colocation of technology
- Physical servers for use in colocation facilities
- Virtual server for use in colocation facilities
- Enterprise Service Bus



# Residential IDF

- Flush Mount Cabinet
- 16 Port (Category 6) Patch Panel x (2)
- Voice Distribution Panel
- Optic Data/Voice Switch
- Battery



MUNI DEBATE: OPEN ACCESS

## It's the Law in Loma Linda: Mandatory Fiber and In-House Networks

An interview with Loma Linda's W. James Hettrick, Director of Information Systems

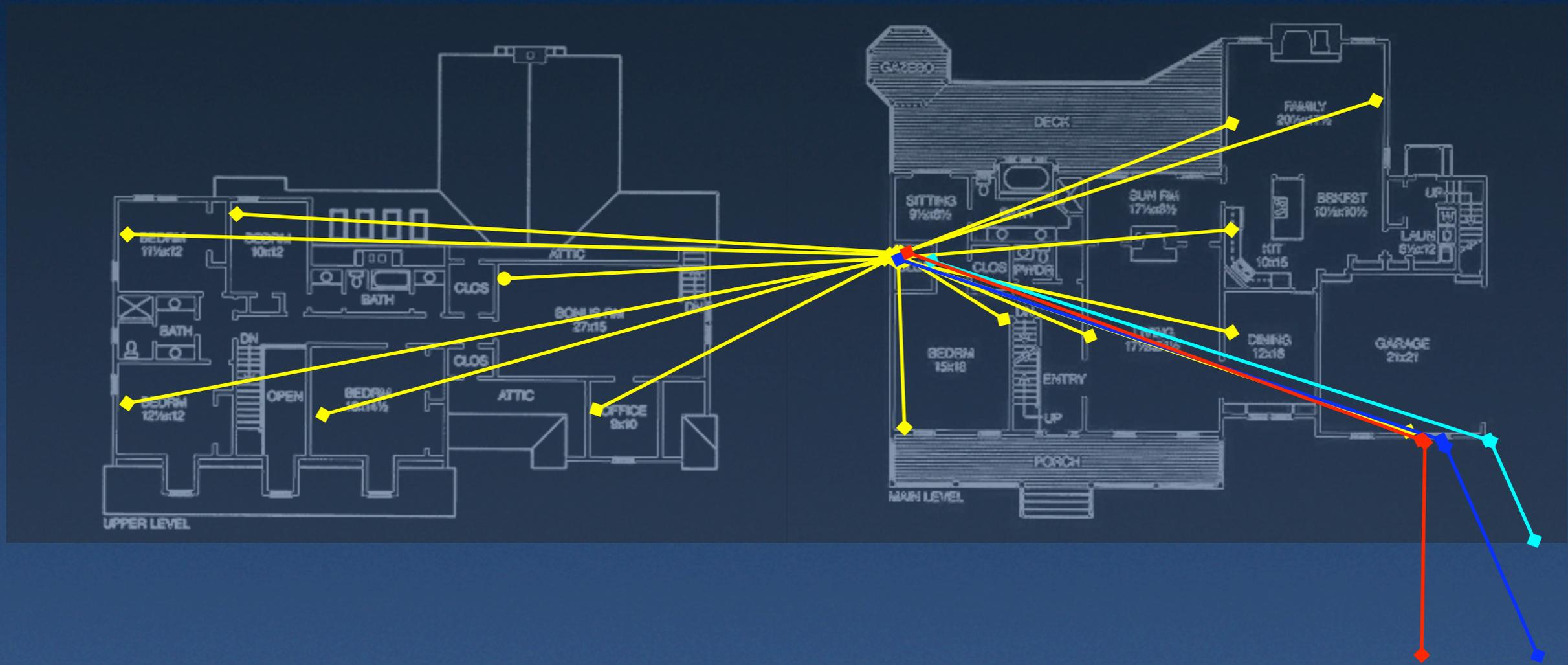
By Steven S. Ross, Editor in Chief

...pretty great mix. Loma Linda is a retirement community, but the Seventh Day Adventist community is tied to it. When they return from their missionary work they retire here. They're very educated and worldly.

...homes? ...rooms and ...\$800,000 for ...on a 3,500 sq. ft. ...an 8,000 sq. ft. lot from \$700,000 to ...

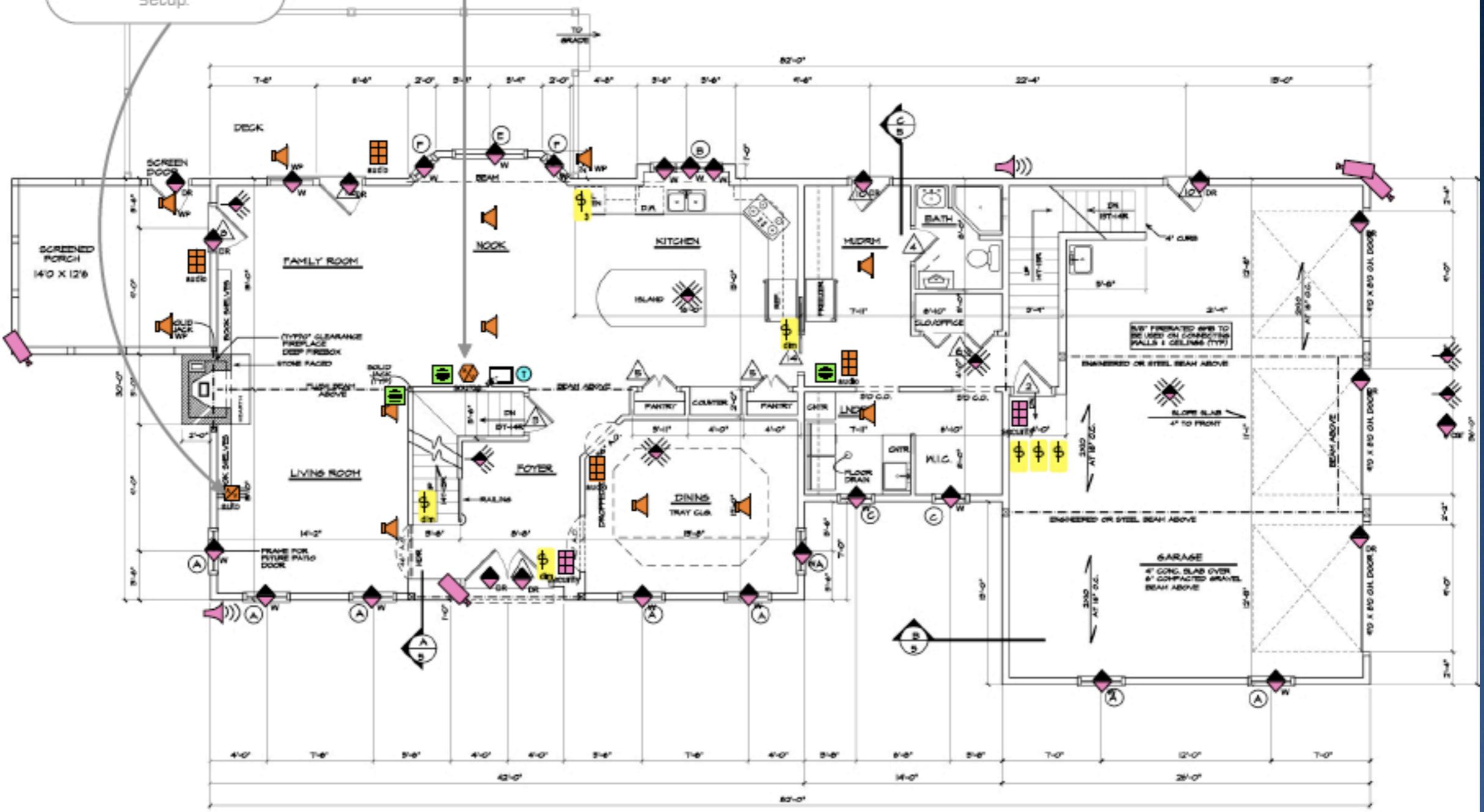
...of that infrastructure. ...of people are moving. ...Q. Is there much MDU development or is it all freestanding singles? ...A. There are quite a few MDUs. On the books right now we have between 1,200 and 2,000 apartments in the planned area. We also have normal lot size traditional housing tracts in the style of the 70s and 80s. And we have new smaller ...





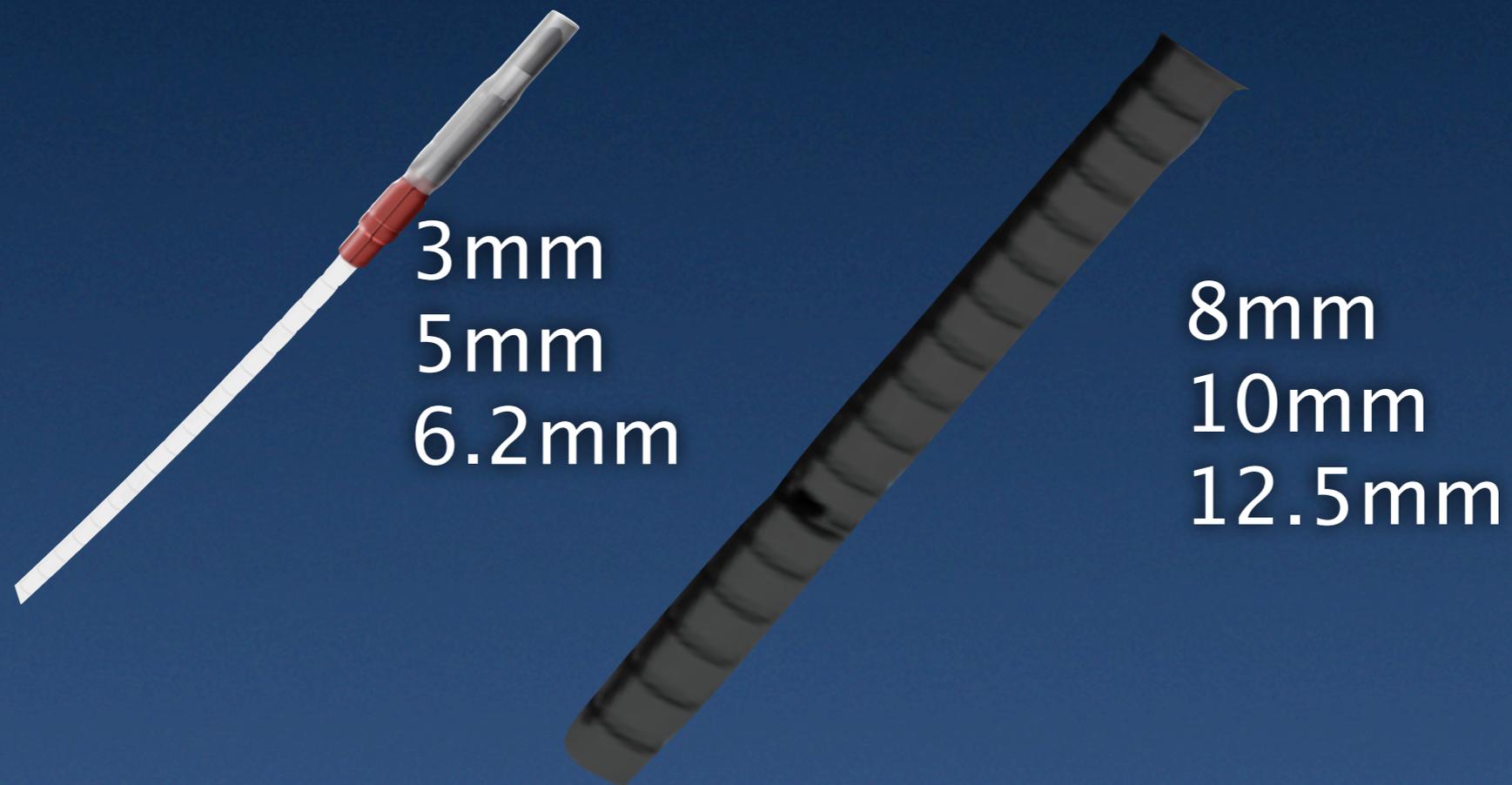
Speaker Selector - Allows 2 speakers to play either multi-room audio or be the rear channels in a 5.1/7.1 setup.

iPod Dock

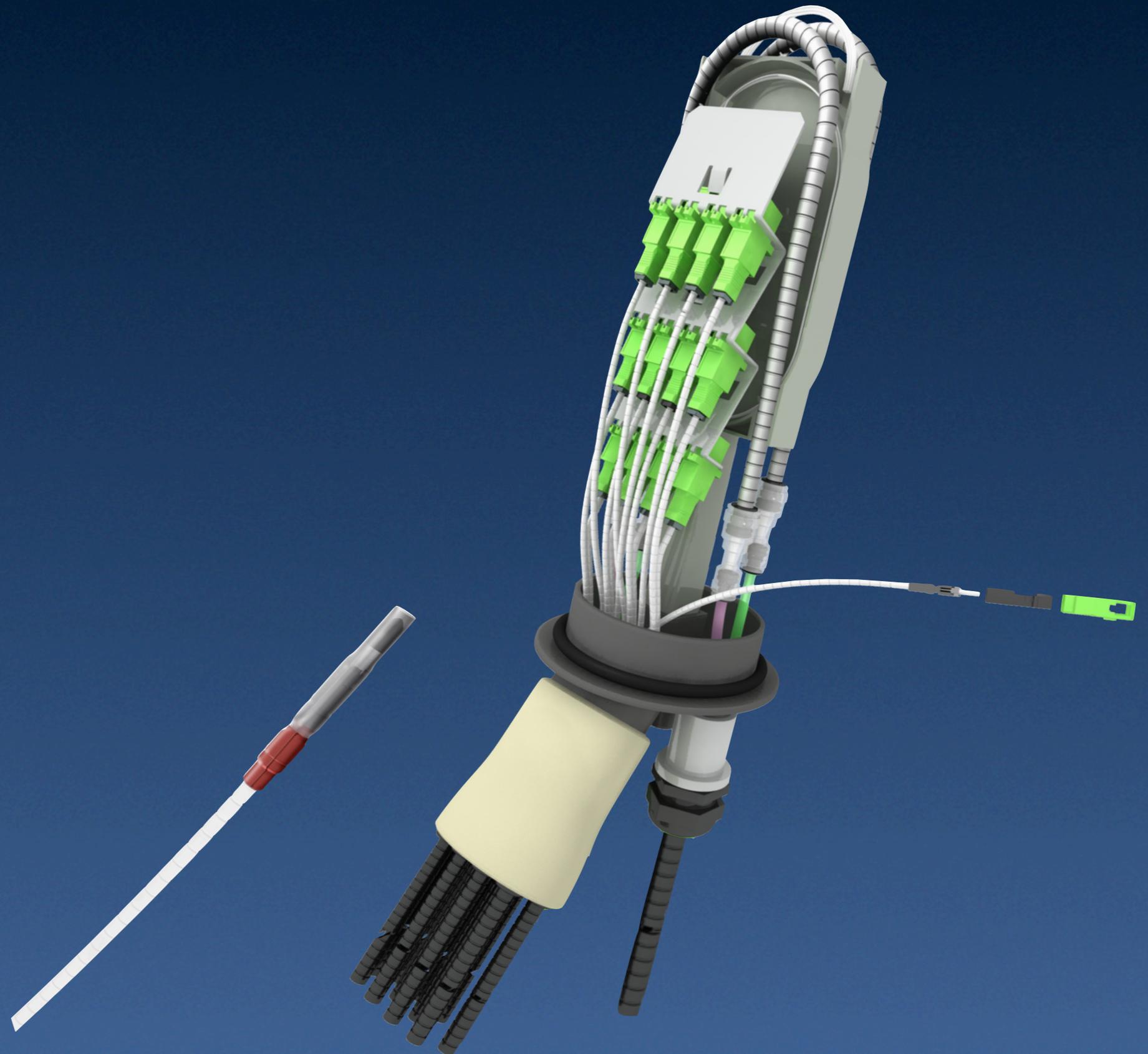


FIRST FLOOR PLAN

Ceiling Height @ This Level = 9'-6"  
Scale: 1/4" = 1'-0"



# Think Beyond Broadband™







# Services

## Layer 7

# Endless Possibilities



$$6^6$$

$$6 \times 6 \times 6 \times 6 \times 6 \times 6 = 46,656$$

### THE LATEST

BASEBALL

NFL

FANTASY

NBA

NCAA FOOTBALL

NHL

BREEDERS' CUP

ESPN SHOWS

Pardon the Interruption

ESPN 360 VIDEOS

ESPN PPV

ESPN ARCADE

### THE LATEST

RSS



Brady and the Pats Roll Over Vikings



Vikings Can't Keep Up with Brady, Pats



Friends and Family Pay Respects to Red



SportsCenter



Partners Deniro



Around the NFL



Off-Met



NAS Texas

## AROUND THE NFL WITH T.J. AND MORT



MEMBER NAME:

PASSWORD:

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Already an ESPN GamePlan subscriber? Login here to watch games. [\\* Forgot Password?](#)

ESPN PPV PAY-PER-VIEW

# ESPN GAMEPLAN

MAXIMUM COLLEGE FOOTBALL

How to Order

What is GamePlan

TV Schedule

Online Schedule

System Requirements

FAQ

**ESPN GAMEPLAN**

ESPN PPV PAY-PER-VIEW

ESPN GamePlan is available on TV and Online. To order, call your Pay-Per-View provider or go to ESPN.com search: gameplan

Games telecast locally may also be included in ESPN GamePlan. Games subject to local blackout. Subscriptions subject to applicable sales tax. Commercial locations require an appropriate license agreement.

ORDER FOR TV

ORDER FOR ONLINE



## Watch Full Episodes Online for FREE!



New episode available  
Friday, 2am PST



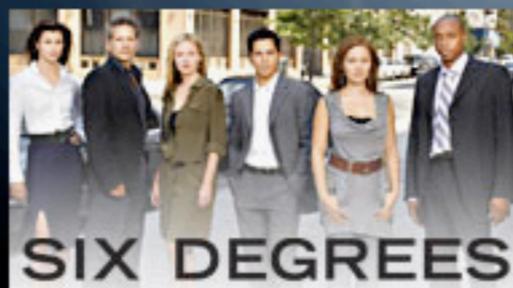
New episode available  
Monday, 2am PST



New episode available  
Thursday, 2am PST



New episode available  
Friday, 2am PST



New episode available  
Friday, 2am PST



New episode available  
Thursday, 2am PST



Preview upcoming  
ABC shows

[Launch Now](#)

We've made the most recently-aired episodes  
of the shows listed above available for you online.



# KyLinTV



中文

What Is KyLinTV?

Now Playing

Get It Now!

Members Only

## NORTH AMERICA'S PREMIER BROADBAND IPTV

- ✓ 37 Most Popular Broadcast TV Channels
- ✓ Vast Selection Of Videos On-Demand
  - Top Movies
  - Top TV Dramas
  - 24 Hours News
  - World of Sports
  - Special Entertainment



only on  
**KyLinTV**  
\$29.99/month

More...

## KyLinTV Demo

**Southern Asian American Expo CA**  
Jan. 19 - 20, 2008 10AM - 7PM  
Pomona Fairplex, 1101 W.  
McKinley Ave, Pomona, CA 91768  
Hall 4, Booth #726 / Hall 6, Booth #B37

**2008 Year of Rat Holiday Gift Fair CA**  
Jan. 26 - 27, 2008 10AM - 5PM  
World Journal Building, 4th Floor Exhibition Hall  
1588 Corporate Center Drive,  
Monterey Park, CA 91754

## KyLinTV 新闻 / News



KyLin TV DEMO



New Year Blockbusters



WATCH IT NOW!  
Click Here

Designed for Multiple Devices and Component HD Compatible Devices

# SLINGBOX PRO

## Your home theater *away from home.*



Buy Now

Connect the Slingbox to your entertainment system at home



Watch and control from anywhere you have broadband

### YOUR HOME THEATER AWAY FROM HOME

The Slingbox PRO is the perfect companion for your home theater. With the ability to watch and control one high definition video source\* and up to three standard definition video devices, the Slingbox PRO ensures that you can watch all of your favorite home theater entertainment anywhere you go. Using an Internet-connected computer or compatible mobile phone\*\*, you can watch and control your home TV, DVR, basic cable, digital cable box, or satellite receiver anywhere around your home or around the globe. With a Slingbox PRO you are never separated from your favorite TV shows, sports broadcasts, breaking news stories, digital video recordings, or video on demand.



### ULTIMATE CONNECTIVITY

Connect and control up to four A/V sources. This means you can access your entire home theater, including digital cable, DVD players, TiVo, or any other new-fangled contraption you may have. HD READY The Slingbox PRO is HD Component video compatible (up to 1080i) when used with the optional [Slingbox HD Connect Cable](#). The Slingbox and SlingStream technology adapts the compressed video stream to

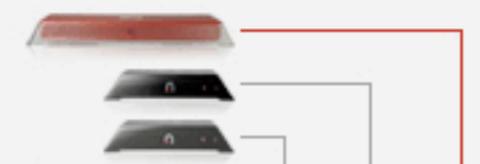
match the available network and Internet bandwidth. This provides the best possible video quality between the Slingbox and the SlingPlayer application, whether running on a computer or mobile phone\*\*.

### SLINGPLAYER

SlingPlayer is the interface that appears on the screen of your computer or mobile device. This pioneering software allows you to watch and control



### Which Slingbox is right for you?



Compare Slingbox Features	TUNER	AV	PRO
Widescreen (16:9) support	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High quality programmable video compression	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Watch & Control any PC/Mac/Laptop	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Watch & Control from mobile phones*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TV/analog cable tuner	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### What do I need?

To get started with any Slingbox, you'll need at least the following:

- ✓ Windows based PC
- ✓ High-speed Internet connection

# Strategic Goals

## Improve TRANSPORTATION Connectedness

- Develop Transportation Master Plan
- Partner With The Community In Planning Transportation Improvements
- Explore Alternative Transportation Technologies
- Maintain Control Of The City's Rights-of Way
- Improve Connectivity Through Industrial Areas

## Provide Effective And Efficient CITY SERVICES To The Community

- Succession Planning
- Hire In Accordance With The City's Organizational Values
- Establish Performance Excellence Through Productivity Improvements
- Improve Internal Organizational Communications
- Provide State Of The Art Technological, Professional And Managerial Training
- Increase Financial Stability Of The City
- Strengthen Intergovernmental Relations

## Enhance Our Sense Of COMMUNITY

- Provide Places For Youth To Engage In Healthy Activities
- Promote Aesthetic Beautification In Streetscapes And Gateways
- Enhance Neighborhood identities And Connectiveness
- Increase Involvement Of Residents In Neighborhood Issues
- Create Focal Points And Gathering Places In The local Communities
- Create Multi-Generational And Multi-Cultural Interactions
- Prepare For Annexation
- Maintain A Safe And Secure Community
- Increase Opportunities For Citizen Participation In Local Government

## Support A Dynamic And Sustainable ECONOMY

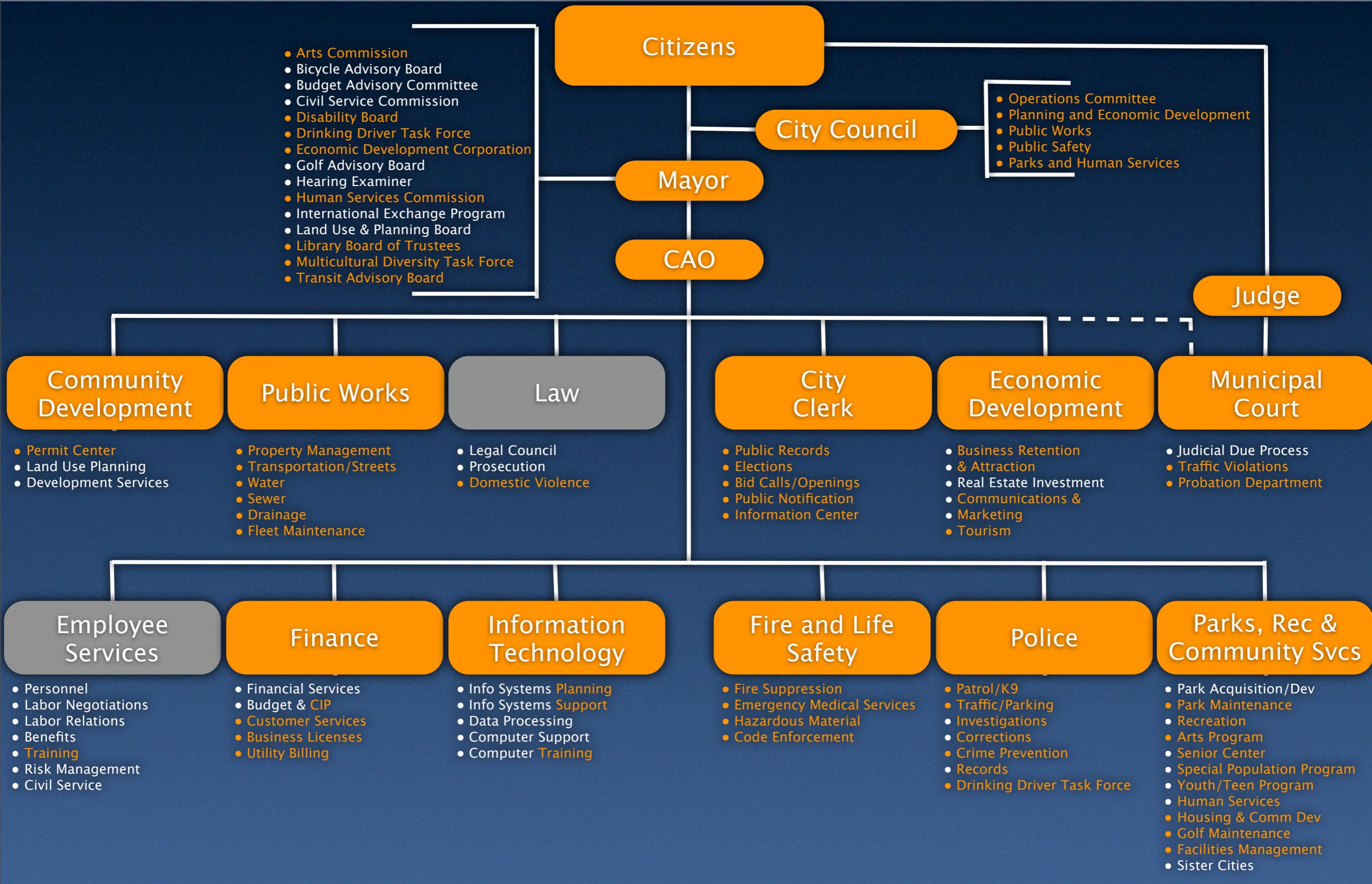
- Facilitate Community & Business Access To Information And Services
- Create The Center For Advanced Manufacturing
- Create A Nexus For Medical/Health/Jobs And Technology
- Encourage The Redevelopment Of Commercial Areas
- Create A Downtown That Is A Destination To Live/Work/Play & Shop
- Create A Workforce To Support Our Economy Through Educational Readiness
- Maintain A Healthy, Vigorous Industrial/ Manufacturing Sector
- Establish A Revised Business And Industries Strategy For Attracting New Partners

## Implement A Comprehensive Strategy For COMMUNICATIONS And Marketing

- Identify And Coordinate City-Wide Communications
- Identify And Position Kent As A Destination/Place Brand
- Expand Public Affairs And Community Outreach

## Become A Unique URBAN CENTER

- Establish Image Public Relations Protocol
- Create A Regional Events, Conference, Sports, Tradeshow Facility
- Enhance Public Amenities Along Green River Riverfront
- Create A Regional Medical Hub
- Develop An Aquatic Recreational Center
- Create A multi-Purpose Performing Arts Center



# Community Service Bus

## Mediation Services

Routing  
Transformation

## Event Services

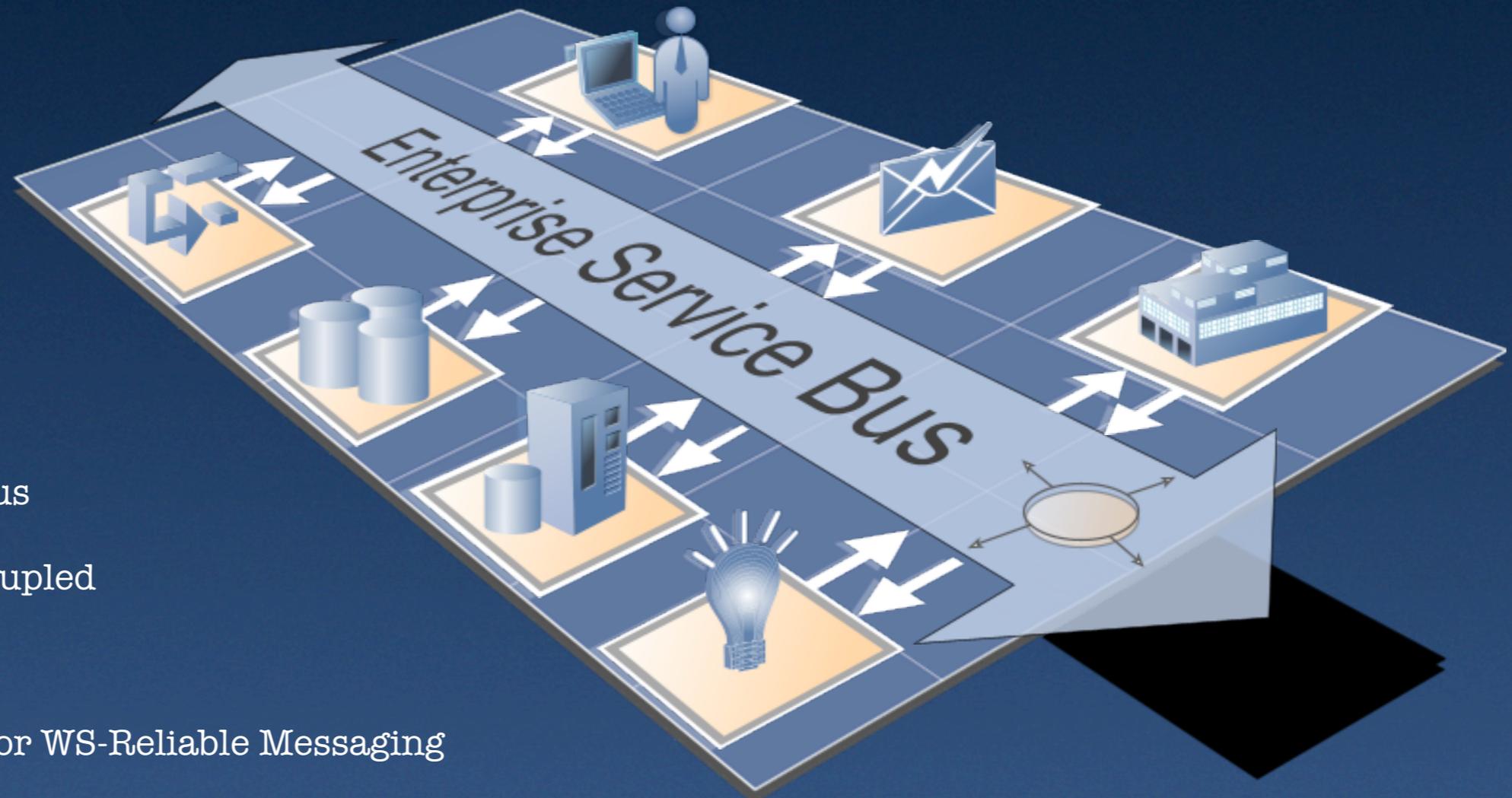
Publish and Subscribe

## Transport Services

Synchronous/Asynchronous  
Persistent/Non-persistent  
Loosely-coupled/Tightly-coupled

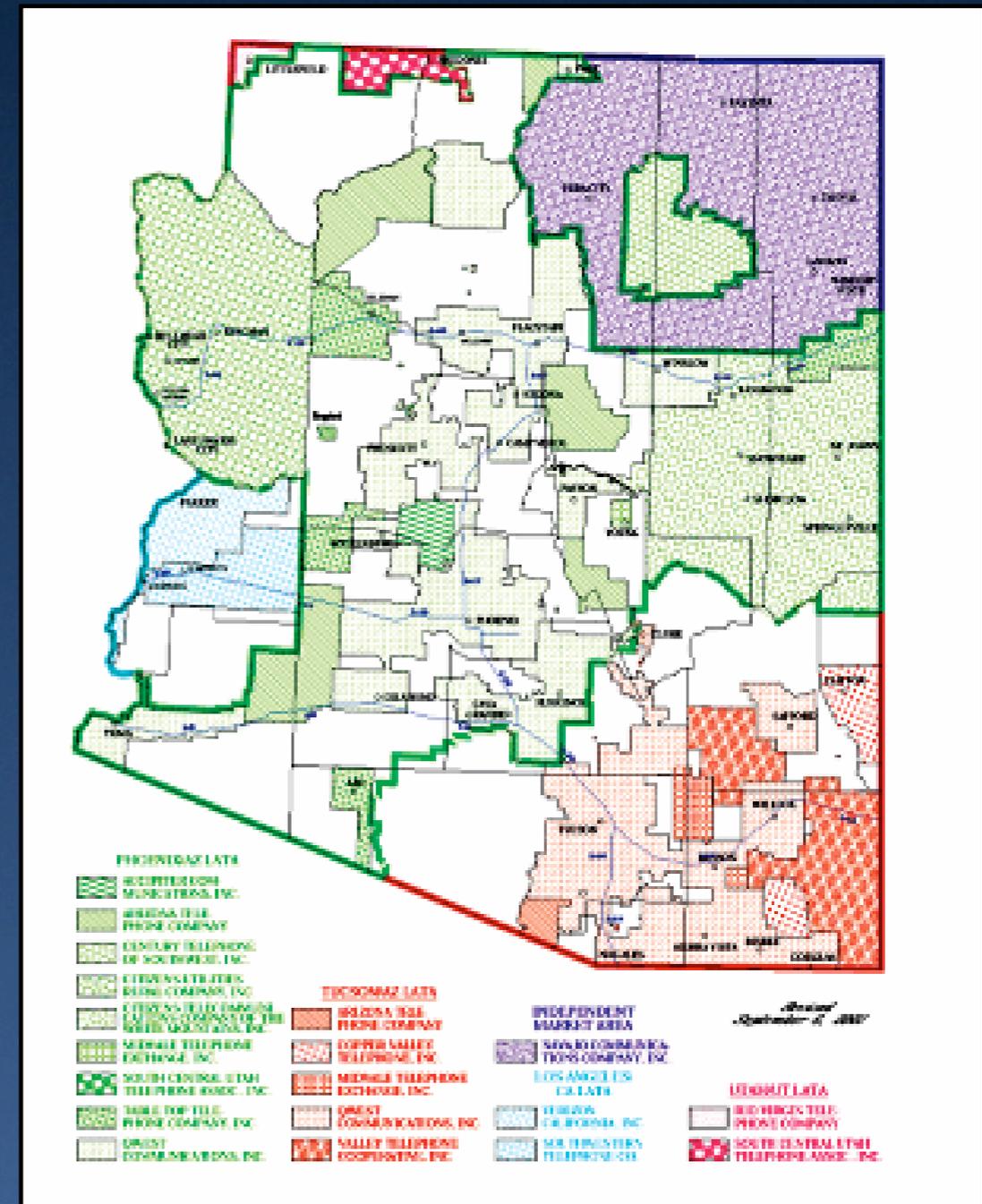
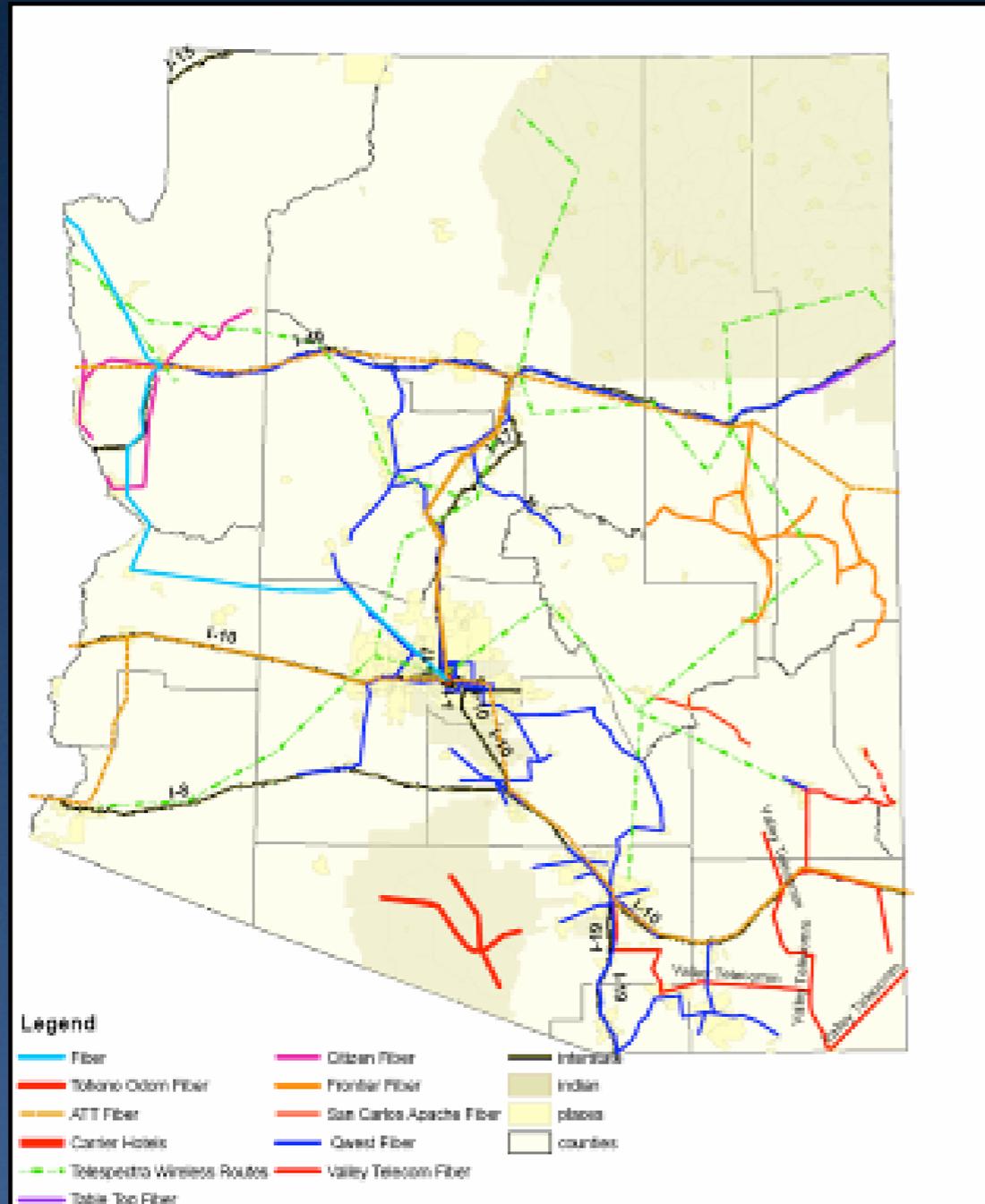
## Standards Based

HTTP/HTTPS with option for WS-Reliable Messaging  
JMS, JAX-RPC, SOAP  
WS-Security, WS-Policy, WS-Addressing

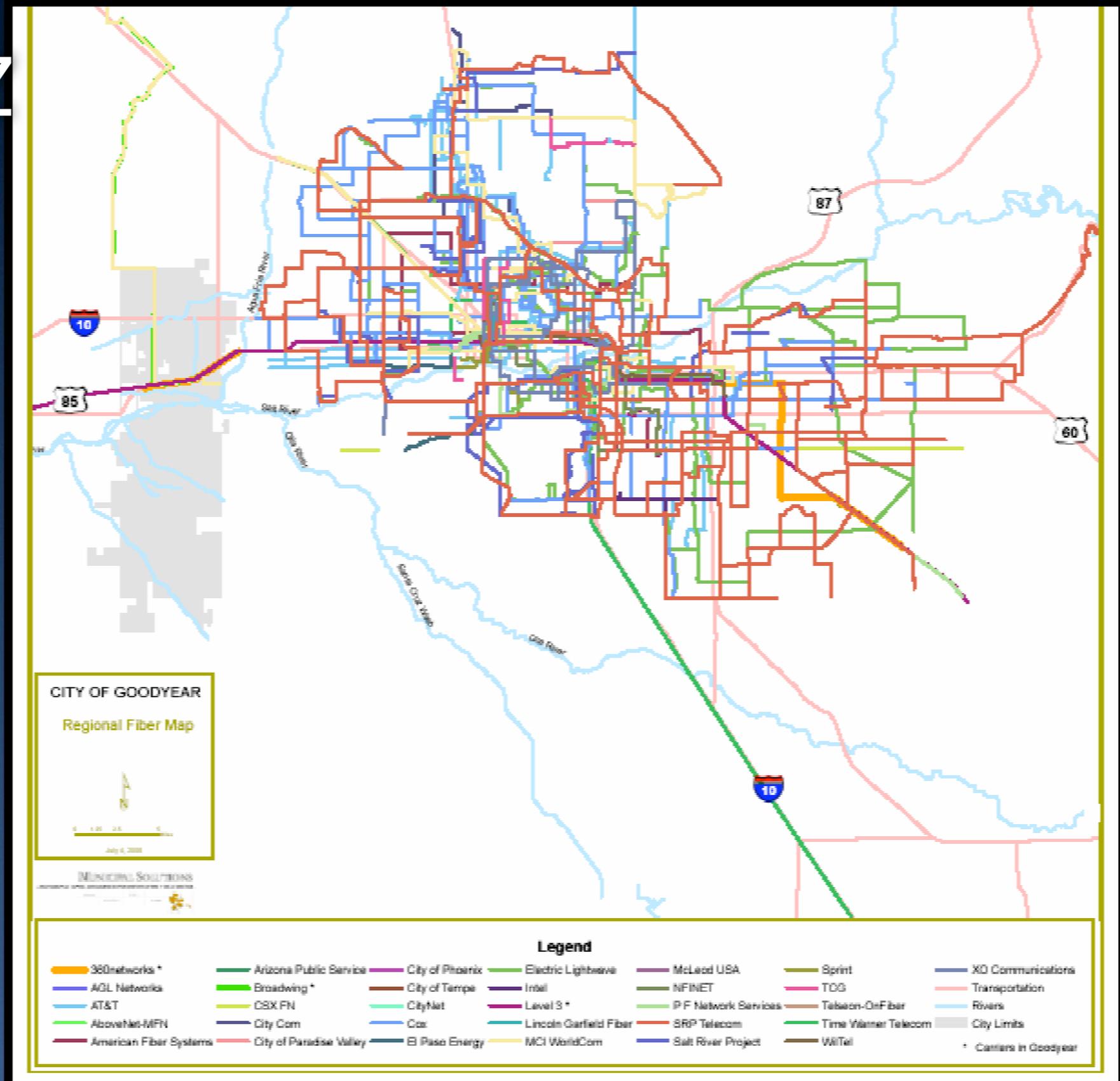


- Scale to match performance and throughput needs
- Security

# Arizona

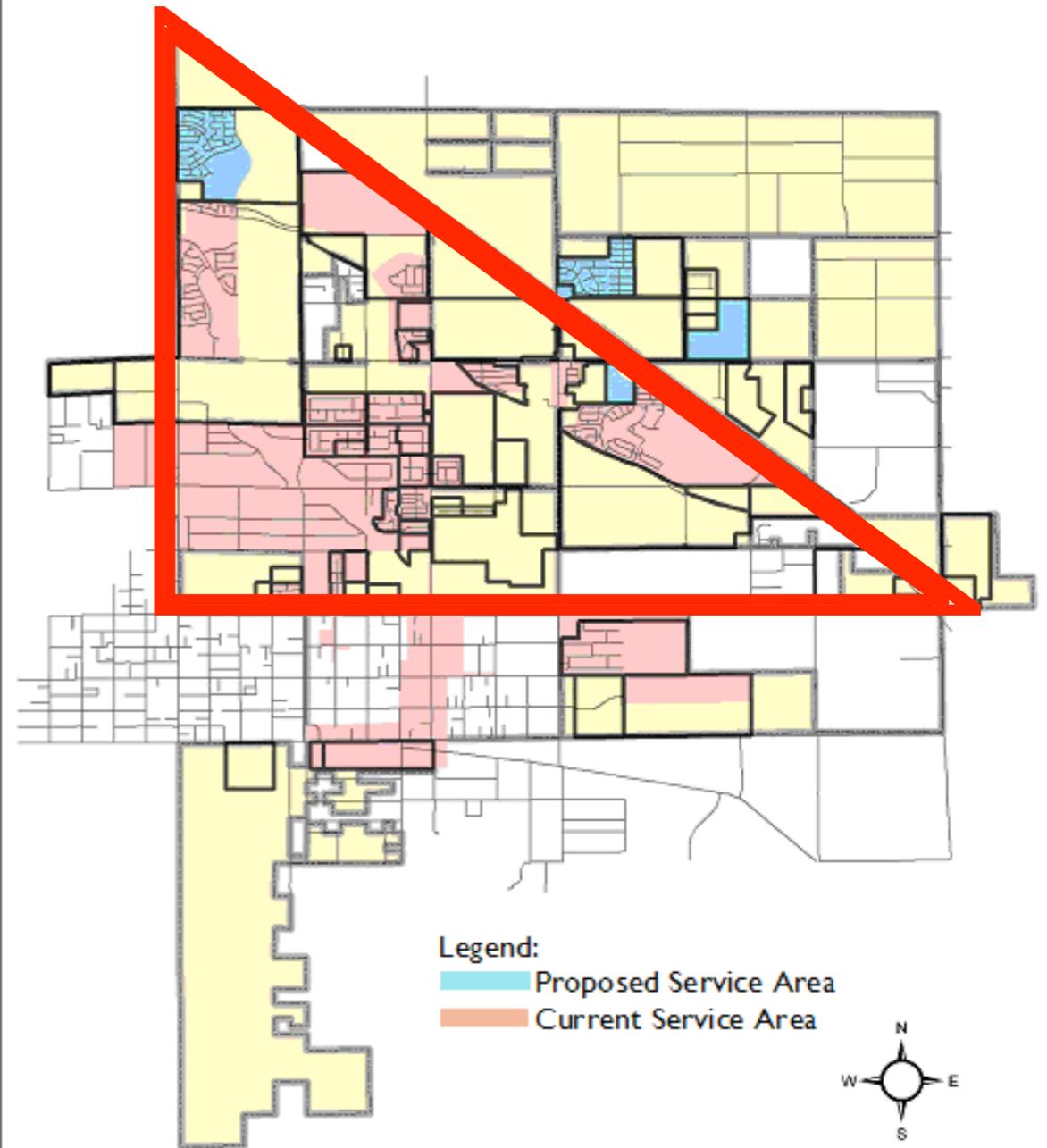


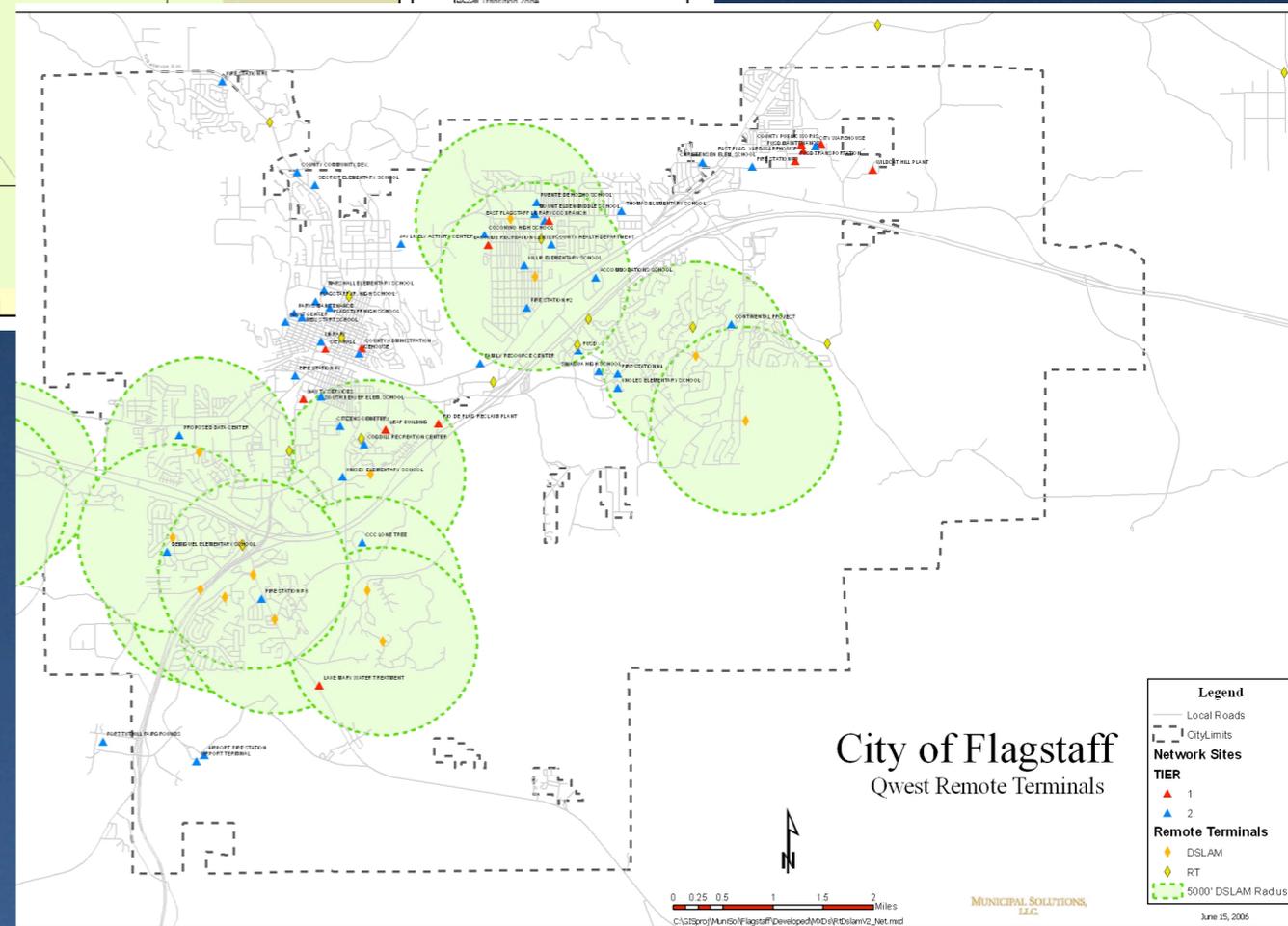
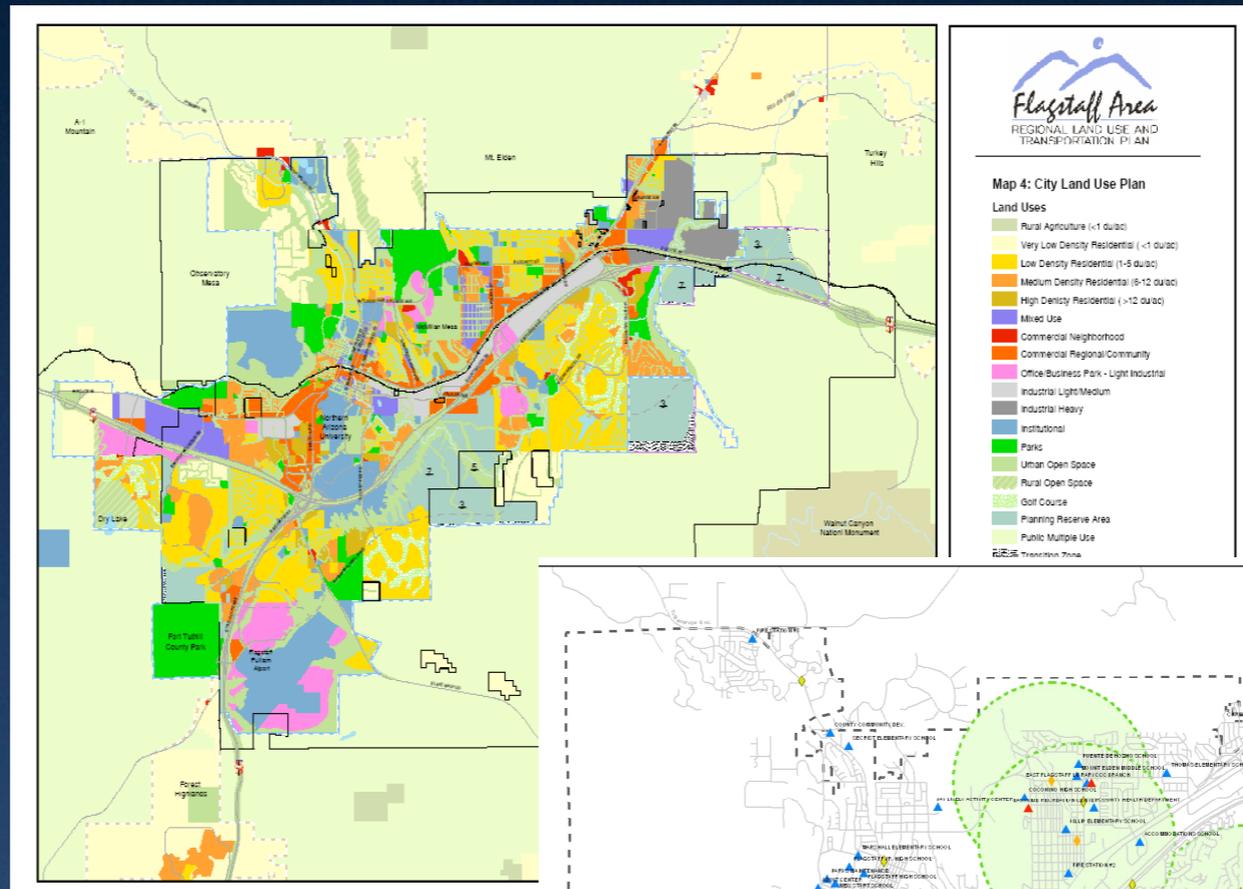
# Goodyear, AZ



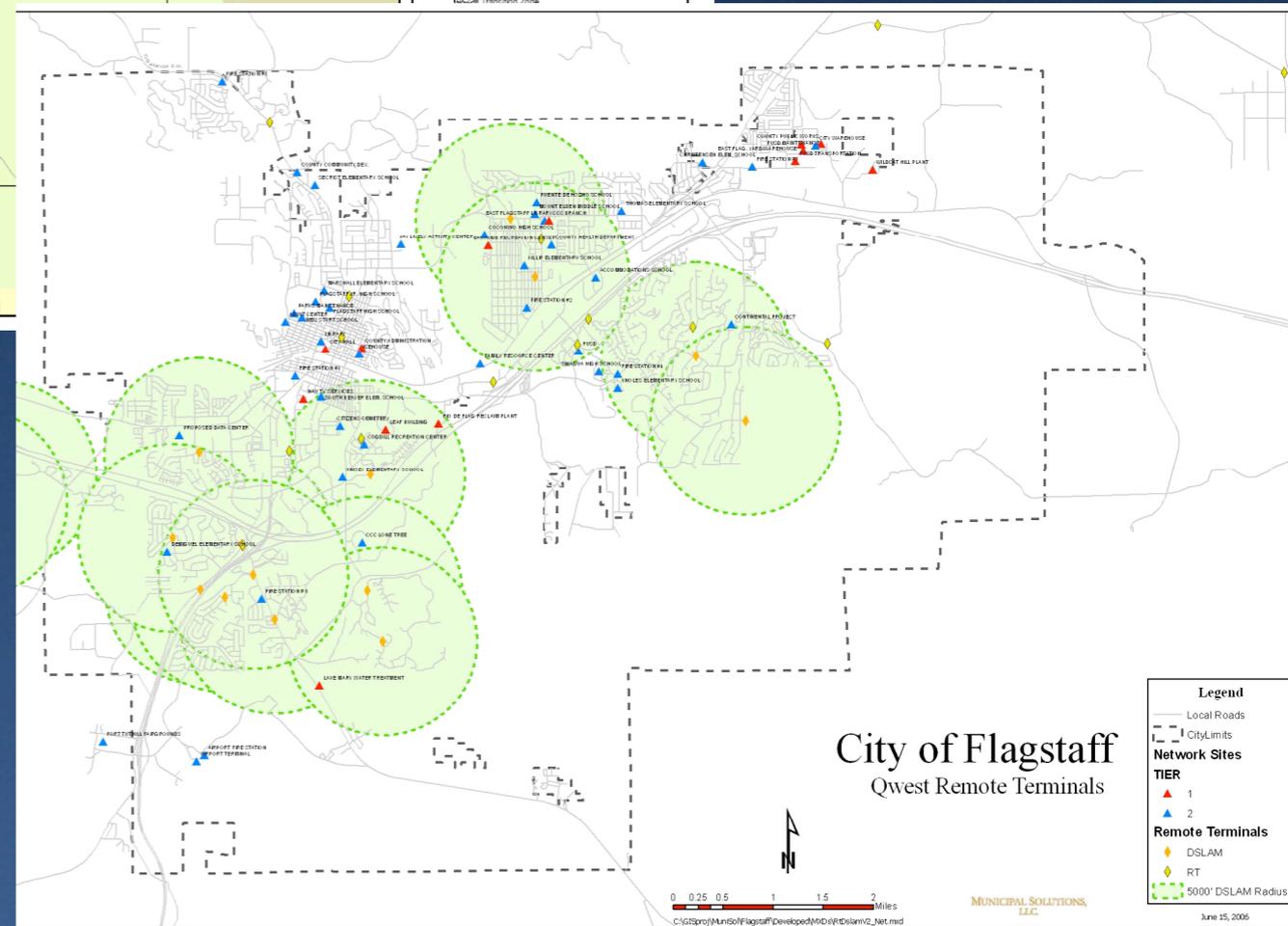
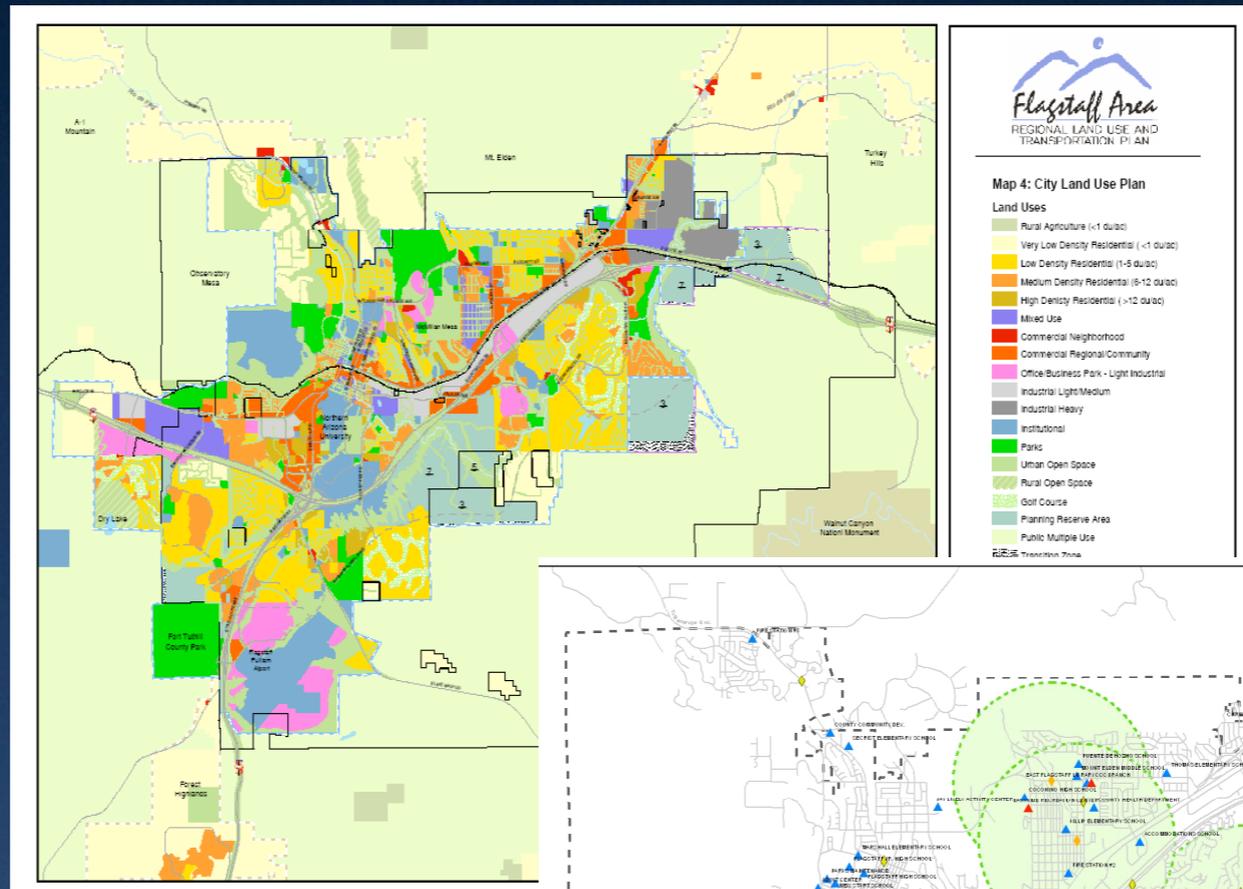
# Queen Creek, AZ

Queen Creek – Current & Proposed Commercially Available Broadband Service Areas



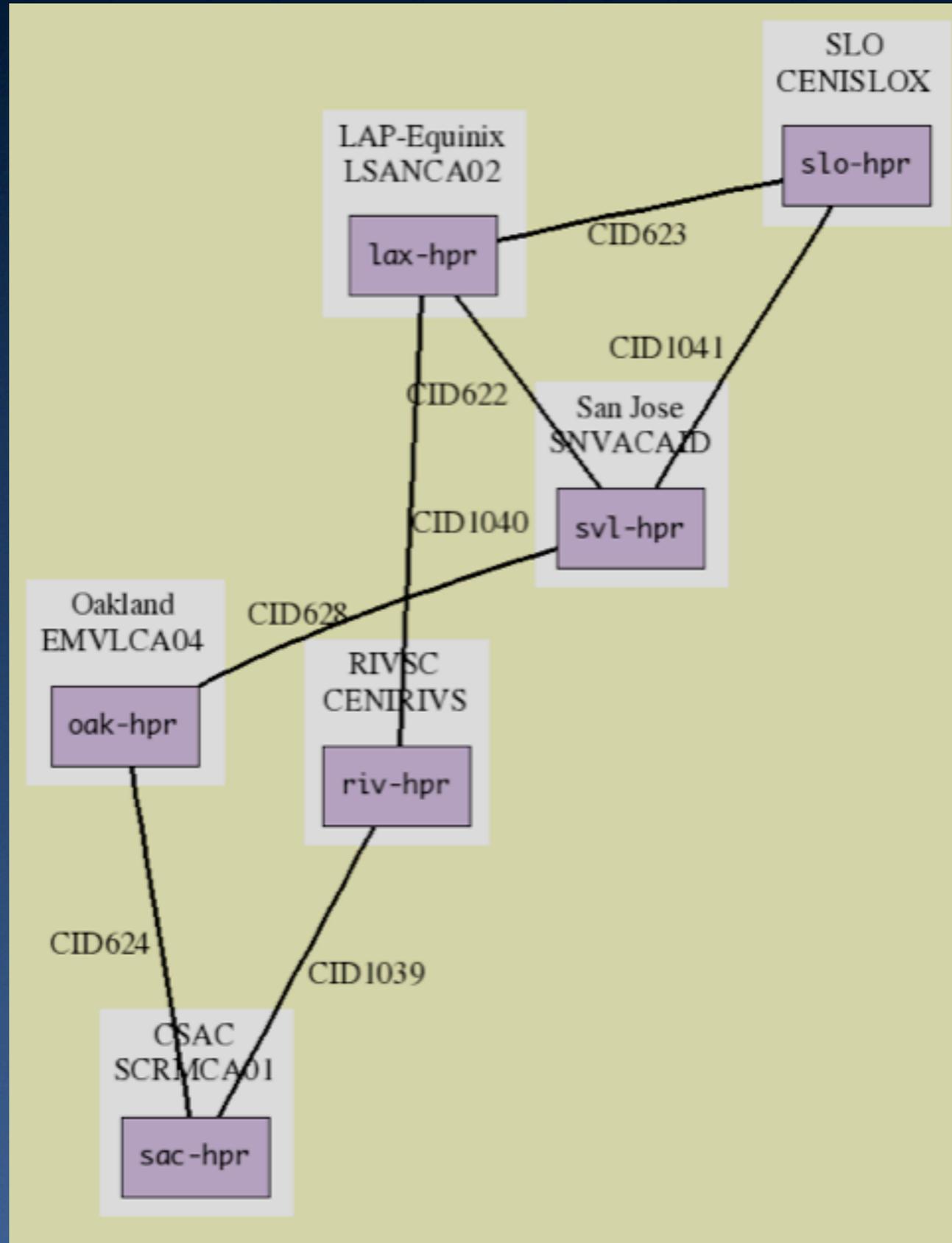


## Flagstaff, AZ



## Flagstaff, AZ

# Think Beyond Broadband™



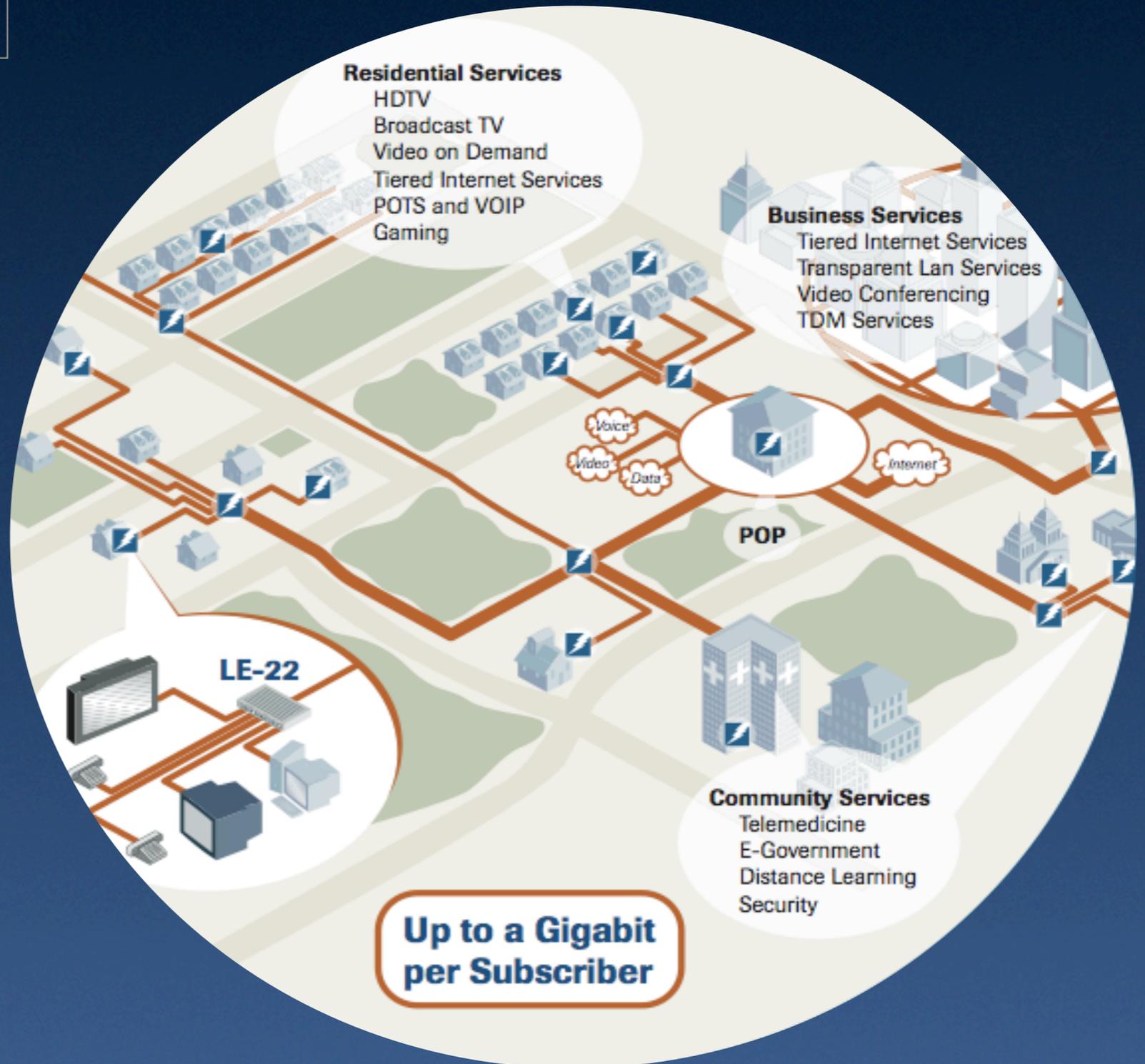
## Hawaii Broadband Task Force

- Identify opportunities for increased broadband development and adoption, of very high speed broadband services.

This means Think Beyond Broadband - 1 Gbps Services are available today via FTTx at a cost effective price.



Built for  
Residential,  
Business and  
Community  
Services



# Community Networks

- Are USEFUL for ALL
  - Municipal
  - Commercial
  - Residential
- Are Comprehensively Designed
  - Are Resilient
  - Are Redundant
  - Are Symmetrical
- Are Aggregations of Technology
  - Are Centrally Managed
  - Utilize 10 to 100 Gbps Backbones
  - Utilize 1 Gbps services via Fiber Optics
  - Utilize Wireless for Mobility
  - Comply with new Standards, i.e.. IPv6
  - Provide Continual Support for TDM
  - Provide VPN, VLANS and/or TLS.

## Hawaii Broadband Task Force

- Remove barriers to broadband access and wider access to public rights-of-way.

This will take New Policy and Law

New or Modified Engineering Standard for both  
Underground and Aerial Deployment

New Building Code Requirements

# Top Reasons Communities Build Communications Networks

- Public Safety
- Create local, regional and global economic development
- Utility Management
- Self Determination
- Community Cohesion

# Revenue Generators

- Internet Service
  - Residential
  - Commercial
  - TLS or VLAN
- Professional Services
- Colocation Services
- Telephone Services
- Video Services
- Security Services
- Community Services
- Economic Synergy
- Advertising Content
- User Metrics
- Utility Services

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# “Think Beyond Broadband”

Communications Master Planning  
Economic Development & Sustainability

Collaboration Solutions  
Applications & Services

Infrastructure End to End  
Fiber and Wireless

# “Think Beyond Broadband”

We would like to help you architect your **Communications Ecosystem**, by pioneering the design and deployment of fiber optic networks for future-generation data services, video & entertainment, voice, utility monitoring & control, public safety, education, city, and community networking. We will focus on **comprehensive communication planning** and you have our committed to enable and empower individuals and communities, foster economic development and enhance competitiveness in the regional, national and global economy.

Think Beyond Broadband™



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