

The background features a complex geometric pattern of intersecting lines. The top half is dominated by a grid of bright yellow lines that create a perspective effect, receding towards the center. Below this, the background transitions into a darker blue field with a pattern of smaller, more intricate geometric shapes and lines, some of which are highlighted in a lighter blue. The overall aesthetic is modern and technological.

Monterey County Information Technology

Telecommunications and Computational Services



Y2K Service Review and Analysis

- Broadband requirement County wide Services:
 - 4,700 Employees
 - 3300 Square miles
- 27 Departments including: Health, Social services
 - 911 Dispatch and Radio coverage support.
 - County Hospital ; (Superior Courts); Ag Commission
 - Office of Employment training, Libraries etc

Outreach to Consumers

Challenges - Technology Developments, Networks
Development, Technology Convergence

County Information Technology Services

- **Computer Services**

- IBM Mainframe, AS400 etc.
- Distributed – 350 Servers
 - PC based 4,500 plus PC's
 - » Networks, Intranet and internet Access

- **Telecommunications Services**

- County Phone System and network
- County Data Network
- County-wide Public Safety Radio Systems
- (Courts – Video Arraignment)

- **Cable Television**

- Franchise Management
- Broadcast & Streaming Services
- I-Net

Broadband Opportunities

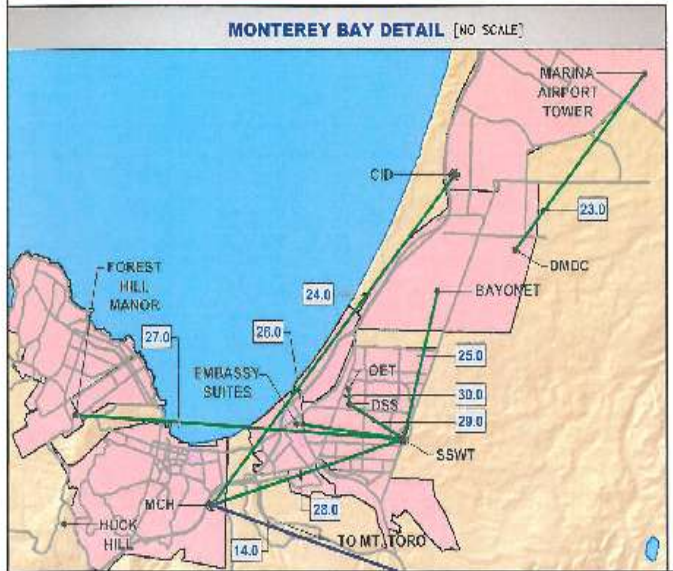
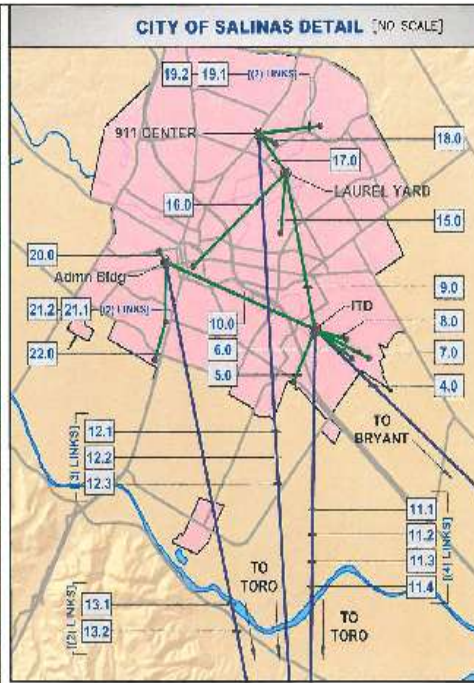
The need – Improved Voice, Data, Video and Public Safety Services

Connectivity Sources

- Leased services
- Microwave (County)
- **Cable TV Franchises**
- **New Technologies**

Funding:- Grants or Internal funding or . .

Competition – **Public or Private**

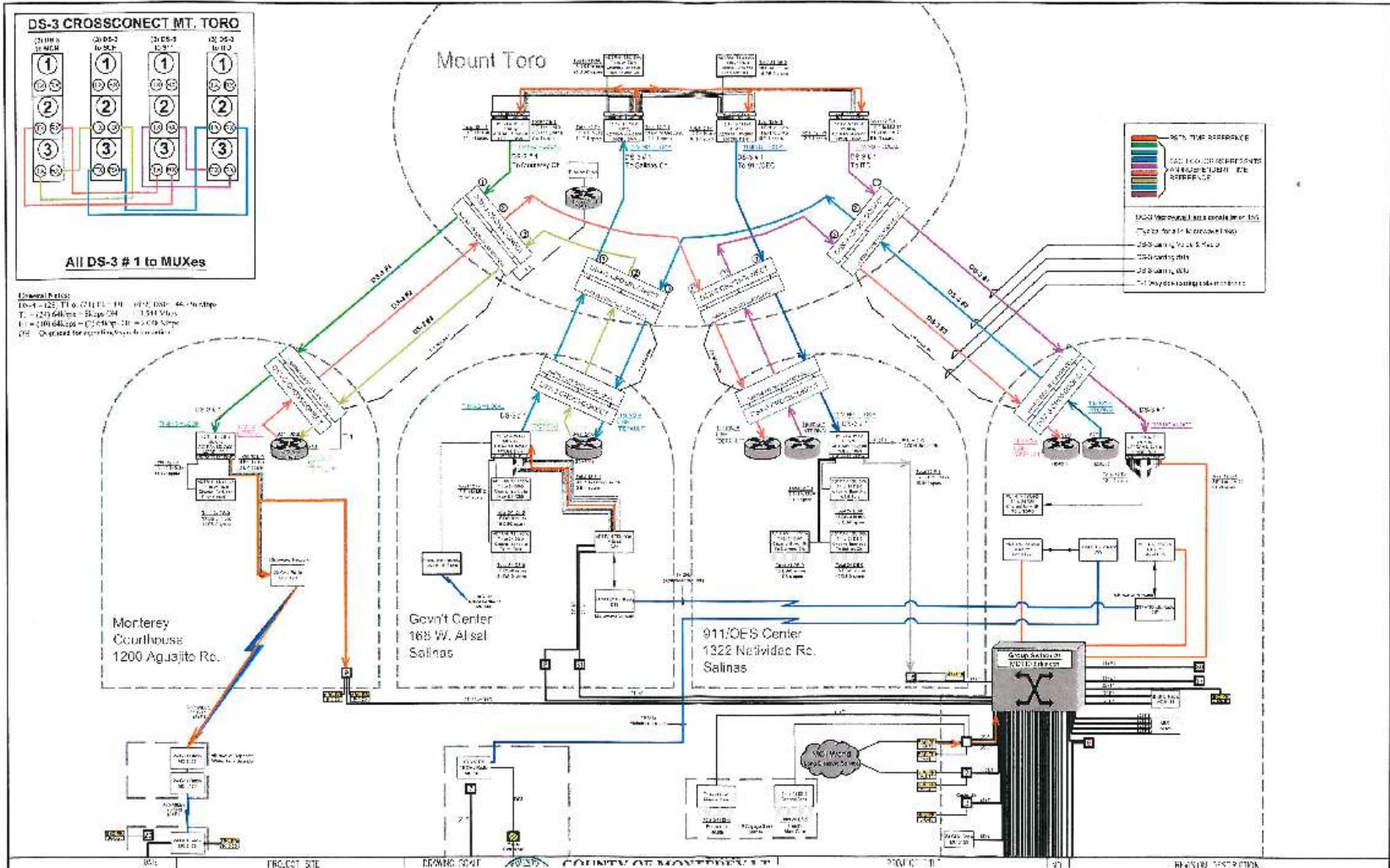


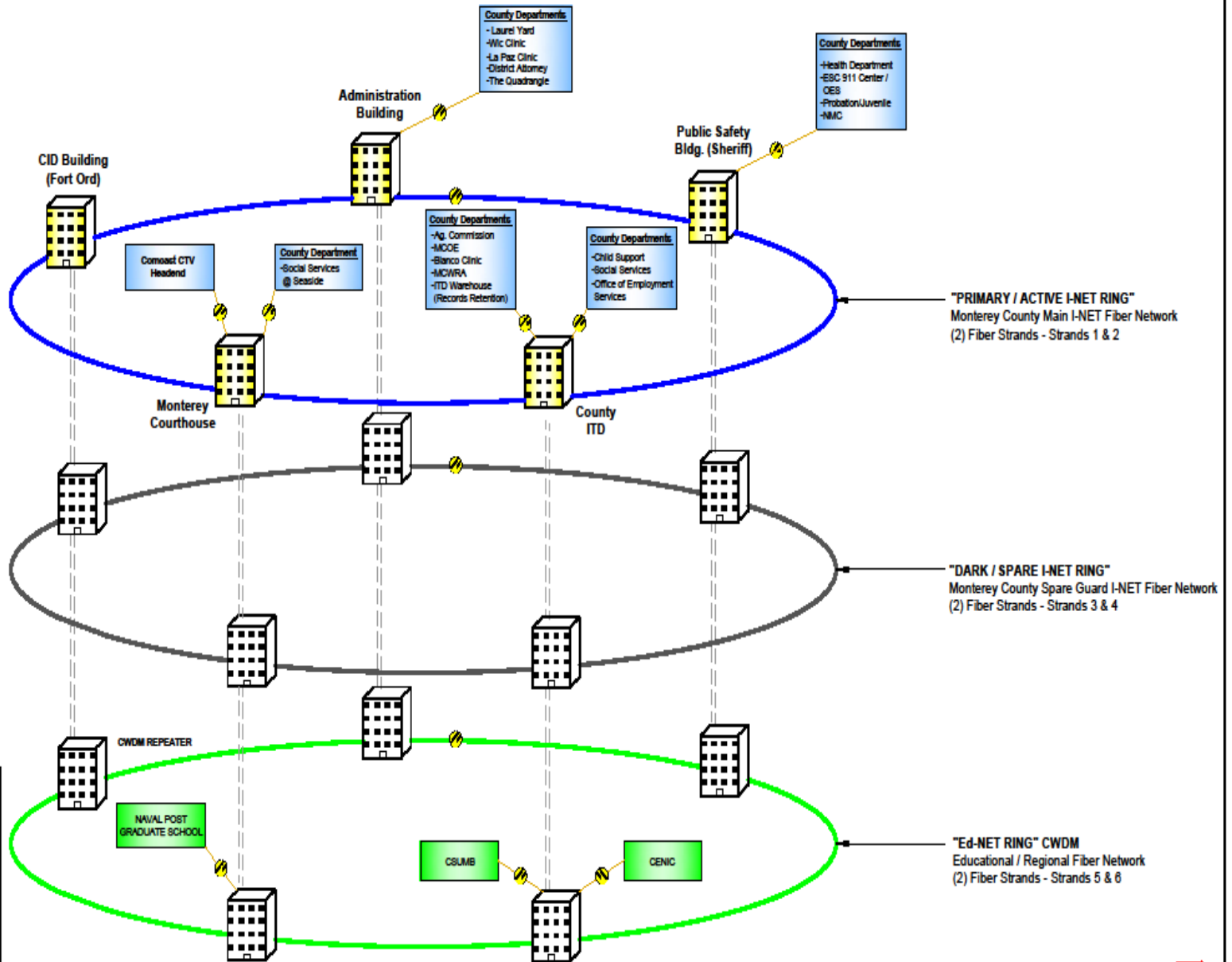
COUNTY OF MONTEREY MICROWAVE INFRASTRUCTURE






LINK ID	SITE #	SITE #	DESCRIPTION	FREQUENCY	CAPACITY	NOTES
1.1	King City Tower 522 N. 2nd Street	K.C. DSS 125 Broadway	Uplink 3000	5.8 GHz	32 Mbps Full Duplex	Point to Multicast Data
1.2	King City Tower 522 N. 2nd Street	K.C. Health / DET 203 Broadway	Uplink 3000	5.8 GHz	32 Mbps Full Duplex	Point to Multicast Data
1.3	King City Tower 522 N. 2nd Street	King City Health 401 Broadway	Uplink 3000	5.8 GHz	32 Mbps Full Duplex	Point to Multicast Data
1.4	King City Tower 522 N. 2nd Street	K.C. Courthouse 320 Broadway	Uplink 3000	5.8 GHz	32 Mbps Full Duplex	Point to Multicast Data
2.0	King City Tower 522 N. 2nd Street	Williams Hill (Cellular)	Aerial 10000	5.0 GHz	100 Mbps (T-1)	Point to Cell
3.0	King City Tower 522 N. 2nd Street	Boyer's Substation	Point to Cell	5.8 GHz	32 Mbps	Point to Cell Data
4.0	Info. Tech. 1025 Market Street	Boyer's Substation	Aerial 10000	5.0 GHz	100 Mbps	Point to Cell Data
5.0	Info. Tech. 3530 Moffat Street	Ag. Commissioner 522 N. 2nd Street	Uplink 3000	5.8 GHz	40 Mbps	Data
6.0	Info. Tech. 1330 Moffat Street	DET 730 Le Sueur Street	Uplink 3000	5.8 GHz	40 Mbps	Data
7.0	Info. Tech. 1025 Market Street	DCSS 250 1st Street	Aerial 10000	5.0 GHz	40 Mbps	Data
8.0	Info. Tech. 1025 Market Street	DCS 730 Le Sueur Street	Aerial 10000	5.0 GHz	40 Mbps	Data
9.0	Info. Tech. 1590 Lafayette Street	East Laurel Yard 853 E. Laurel St	Uplink	18.5 GHz	100 Mbps	Telemetry Point to Cell
10.0	Info. Tech. 250 1st Street	Admin Bldg 125 W. 2nd St	Uplink	18.5 GHz	100 Mbps	Telemetry Point to Cell
11.1	Upper Mount Toro Entrance Ranch 14000 Moffat Street	Info. Tech. 1025 Market Street	Uplink	6.0 GHz	30 Mbps	Point to Cell Data
11.2	Upper Mount Toro Entrance Ranch 14000 Moffat Street	Info. Tech. 1250 Market Street	Uplink 3000	6.2 GHz	30 Mbps	Point to Cell Data
11.3	Lower Mount Toro Entrance Ranch 13000 Moffat Street	Info. Tech. 1025 Market Street	Uplink	6.0 GHz	30 Mbps	Point to Cell Data
11.4	Lower Mount Toro Entrance Ranch 13000 Moffat Street	Info. Tech. 1250 Market Street	Uplink	6.2 GHz	30 Mbps	Point to Cell Data
12.1	Upper Mount Toro Entrance Ranch 14000 Moffat Street	911 Center 203 Broadway	Uplink	6.0 GHz	32 Mbps	Point to Cell Data
12.2	Upper Mount Toro Entrance Ranch 14000 Moffat Street	911 Center 203 Broadway	Aerial 10000	6.2 GHz	30 Mbps	Point to Cell Data
12.3	Lower Mount Toro Entrance Ranch 13000 Moffat Street	911 Center 203 Broadway	Uplink	6.0 GHz	30 Mbps	Point to Cell Data
13.1	Upper Mount Toro Entrance Ranch 14000 Moffat Street	Admin Bldg 125 W. 2nd St	Uplink	6.0 GHz	30 Mbps	Point to Cell Data
13.2	Upper Mount Toro Entrance Ranch 14000 Moffat Street	Admin Bldg 125 W. 2nd St	Aerial 10000	6.2 GHz	30 Mbps	Point to Cell Data
14.0	Upper Mount Toro Entrance Ranch 14000 Moffat Street	Monterey Courthouse 1250 Geary Blvd	Uplink	6.0 GHz	30 Mbps	Point to Cell Data
15.0	East Laurel Yard 853 E. Laurel St	South Center 10000 Moffat Street	Uplink	5.0 GHz	30 Mbps	Data
16.0	East Laurel Yard 853 E. Laurel St	Artill. Exchange 12 W. 2nd St	Uplink 3000	5.8 GHz	34 Mbps Full Duplex	Data
17.0	East Laurel Yard 853 E. Laurel St	911 Center 203 Broadway	Uplink	6.0 GHz	TL	Point to Cell Data
18.0	911 Center 203 Broadway	DCS 730 Le Sueur Street	Uplink	6.0 GHz	100 Mbps	Data
19.1	911 Center 203 Broadway	Coverbridge Health 401 Broadway	Uplink	5.8 GHz	100 Mbps	Data
19.2	911 Center 203 Broadway	Coverbridge Health 401 Broadway	Admin Tower	5.0 GHz	40 Mbps	Data
20.0	Admin Bldg 125 W. 2nd Street	LAPCO 322 W. Geary Street	Uplink 3000	5.8 GHz	40 Mbps	Data
21.1	Admin Bldg 125 W. 2nd Street	Quadrangle 2000 S. Main St	Uplink	20 GHz	15 Mbps	Data
21.2	Admin Bldg 125 W. 2nd Street	Quadrangle 2000 S. Main St	Uplink 3000	5.8 GHz	34 Mbps	Data
22.0	Quadrangle 2000 S. Main St	Quadrangle 2000 S. Main St	Uplink	5.8 GHz	27 Mbps Full Duplex	Data
23.0	Marina Airport Tower	HHH 400 Gipping Rd	Uplink	6.5 GHz	TL	Radio
24.0	CD Building 1025 Market Street	Monterey Courthouse 1250 Geary Blvd	Uplink	5.8 GHz	40 Mbps	Data
25.0	South Water Tank 1545 Shaker Court	Boyer's Substation	Uplink	4.0 GHz	TL	Radio
26.0	South Water Tank 1545 Shaker Court	Embassy Suites 3741 Canyon Blvd	Uplink	5.8 GHz	TL	Radio
27.0	South Water Tank 1545 Shaker Court	Forest Hill Manor 255 Geary Blvd	Uplink	4.0 GHz	TL	Radio
28.0	South Water Tank 1545 Shaker Court	Monterey Courthouse 1250 Geary Blvd	Uplink	5.0 GHz	100 Mbps	Point to Cell Data
29.0	South Water Tank 1545 Shaker Court	South DSS 1251 Broadway	Uplink	5.0 GHz	100 Mbps	Point to Cell Data
30.0	South DSS 1251 Broadway	South DSS 1251 Broadway	Uplink	5.8 GHz	27 Mbps Full Duplex	Data

Concept - Microwave Ring

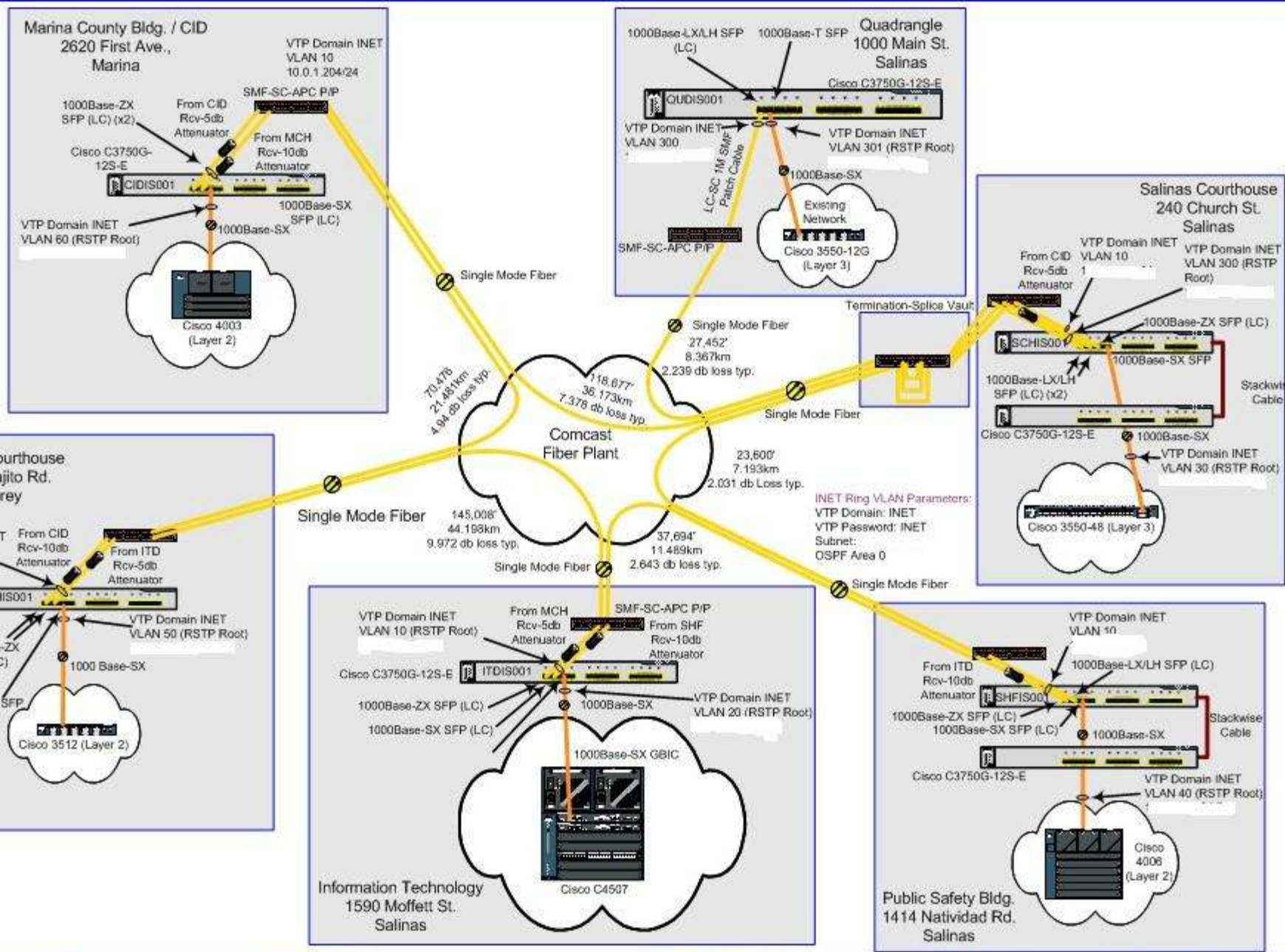


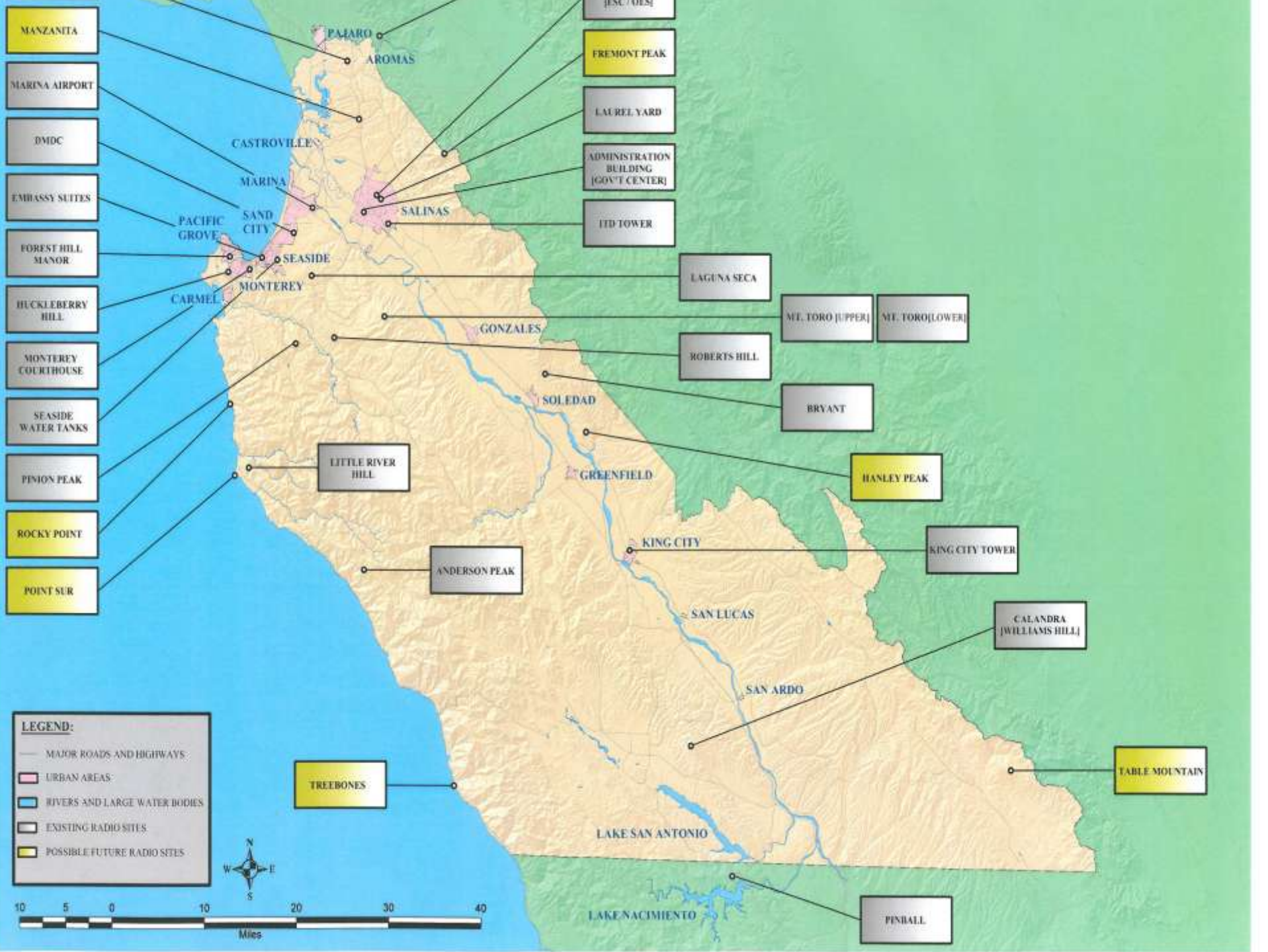


LEGEND:

- = County Main I-Net fiber network
- = EDU/Regional I-Net fiber network (ED-Net)
- = County Spare Guard I-Net fiber network
-  = Bldg with no switch designated
-  = Bldg with Cisco 3750 Switch
-  = Fiber

FOR INTERNAL USE ONLY





Outreach Methods

- Direct:
 - Government and Education Broadcasts (PEG)
 - (Streaming and archiving of content)
 - Office of Employment Training (OET)
 - County Free Libraries (17)
 - Computer centers – wide internet access
 - County Services to the Public

Collaboration

- Public Safety Dispatch & Communications – County wide

Partnerships - Monterey County Office of Education:

- Training Courses in media productions
- Upgrade library computers
- Mobile Computer Center with Trainer
 - Computers – wide internet access

The Technologies (again)

- a) Microwave OC3 (licensed)
- b) Now Hybrid TDM & IP or Pure IP

Laser microwave

Fiber Optics – Gig. E

Fiber Optics - CWDM

Wireless Pt-Pt and Pt to multi-Point

Wi-Fi Access Points & 4.9 GHz (licensed)

Satellite Communications

Convergence – Voice, Data Video onto a carrier

All Digital and the mobility revolution

Lessons Learned – Approach (BTOP Too)

Needs Assessment

(Governance)

(Funding)

Technical Vision

Partnerships

Project Management

Operational Capability

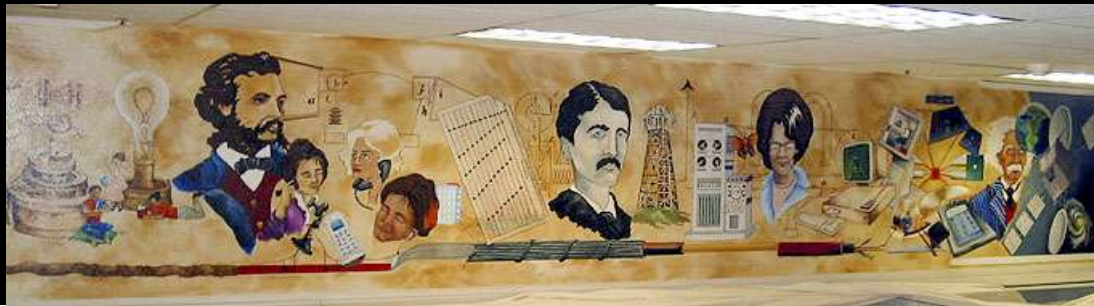
The Results

Government Services with Broadband extended to consumers

- Via County Service Departments or Direct
- Training outreach in several ways
- Cost effective
- Highly leveraged & with partnerships

Private Services used — (not competitively)

Granicus Streaming and Archiving;
Comcast, Charter and AT&T Cable/video Broadcasts
(The “EG of PEG”)



Thank you !

Dave Dalby P. Eng, NSPE
Assistant Director
County of Monterey Information Technology
dalbyd@co.monterey.ca.us