THE COUNTY OF SAN LUIS OBISPO CALIFORNIA

A bit about me – Guy Savage

- Married, kids in high school, live in Santa Barbara County – for now
- Avid triathlete, adventure racer
- CSU Fresno – BS, Mathematics
  USC – MS, Systems Management
- 25+ Years of industry experience
  - McDonnell Douglas, EDS, QAD, software companies, County (last 7 years)
- 20+ years management experience
  - Public, private, non-profit

County Mission

- A Safe Community
- A Livable Community
- A Healthy Community
- A Prosperous Community
- A Well Governed Community

County Facts & Figures

- County Population - 263,227
- Covers 3,316 square miles, over 100 miles of coastline
- 76.1% White (non-Hispanic), 16.2% Latino, 3.4% mixed race, 4.3% other
- Agriculture, tourism, state institutions, nuclear power plant, and recreational activities drive the economy

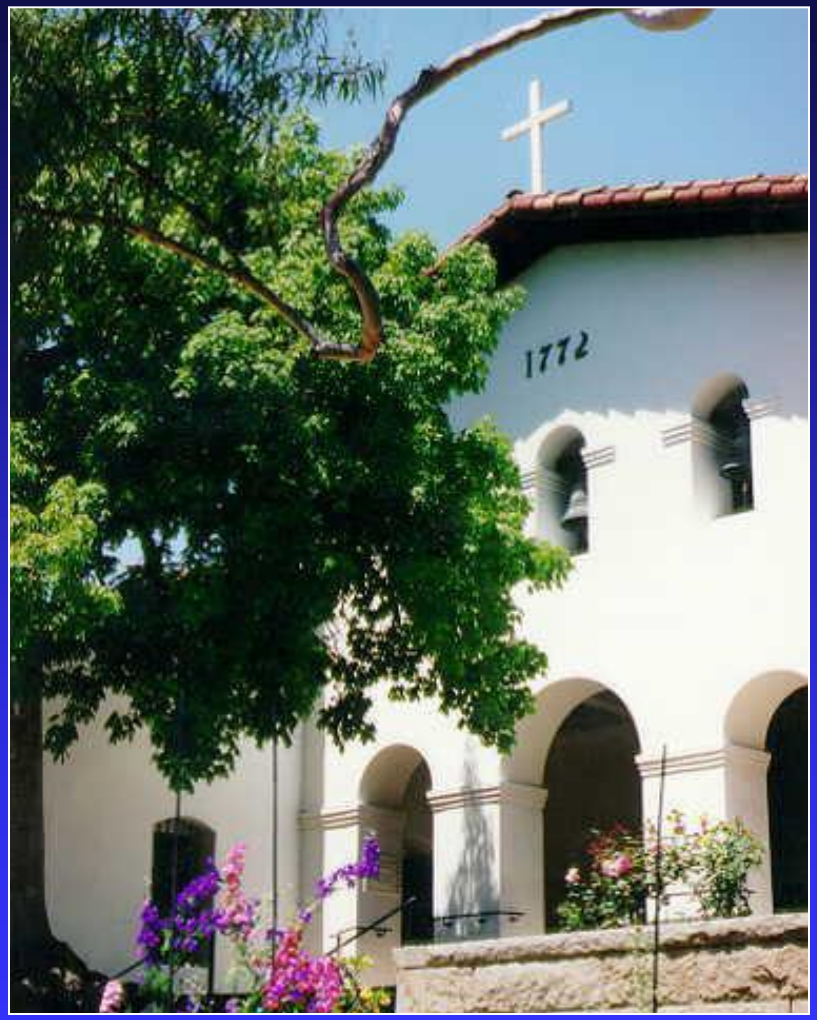
Providing Excellence to Every Customer

More County Stuff – Fiscal Year 2009/2010

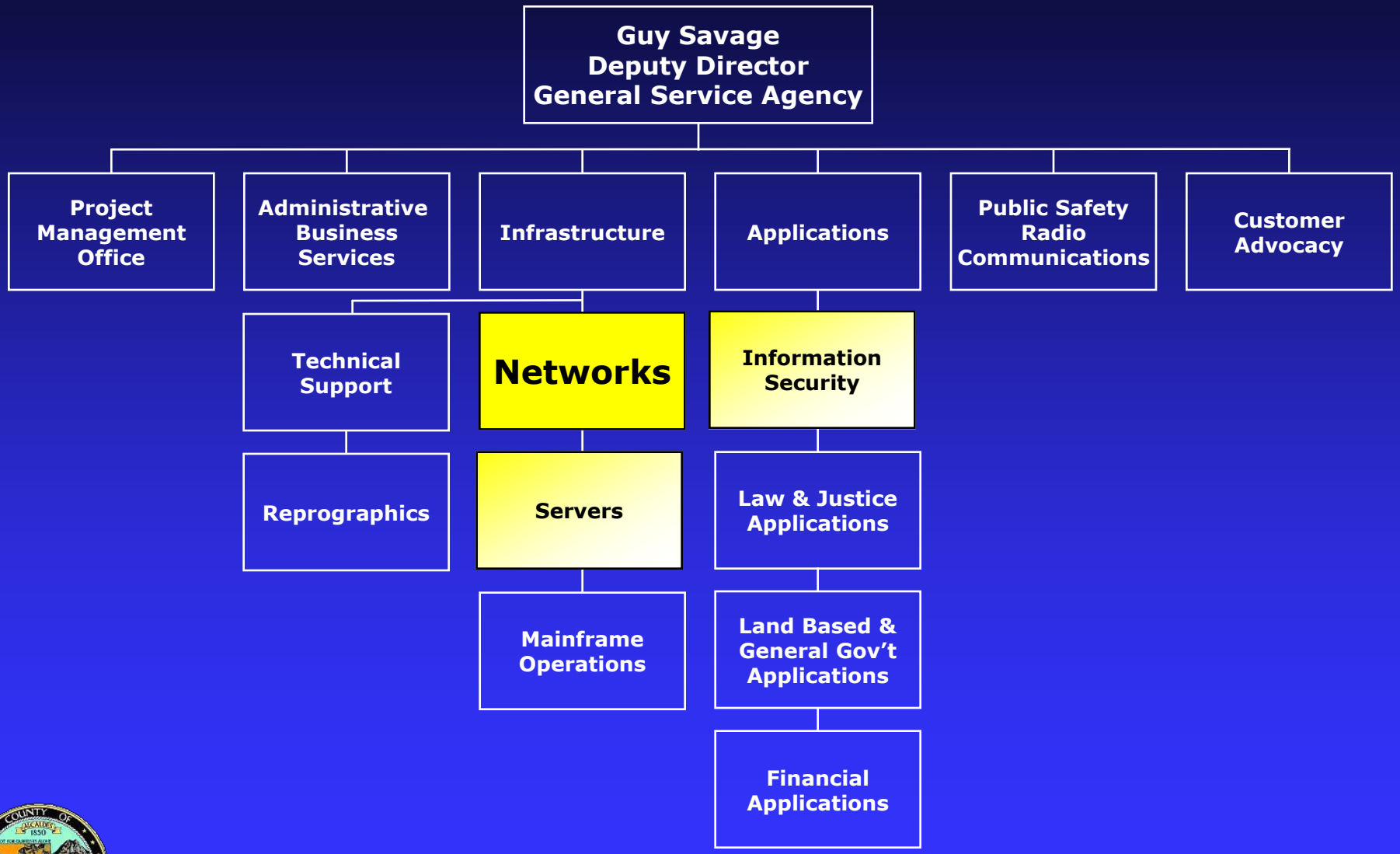
- County employees: 2600
- County budget: $460 (down 6.6%)
- IT Budget: $16M

Information Technology

- General Services Agency
  - Parks, Airports, General Services, Finance, and IT
- IT Employees:
  84 centralized,
  35 decentralized
- GSA-IT Budget: $16m + $1m capital fund
- GSA-IT Mission - We are a professional team dedicated to delivering accurate, reliable, and timely Information Technology solutions that are valued by our customers.



Functional Organizational Chart



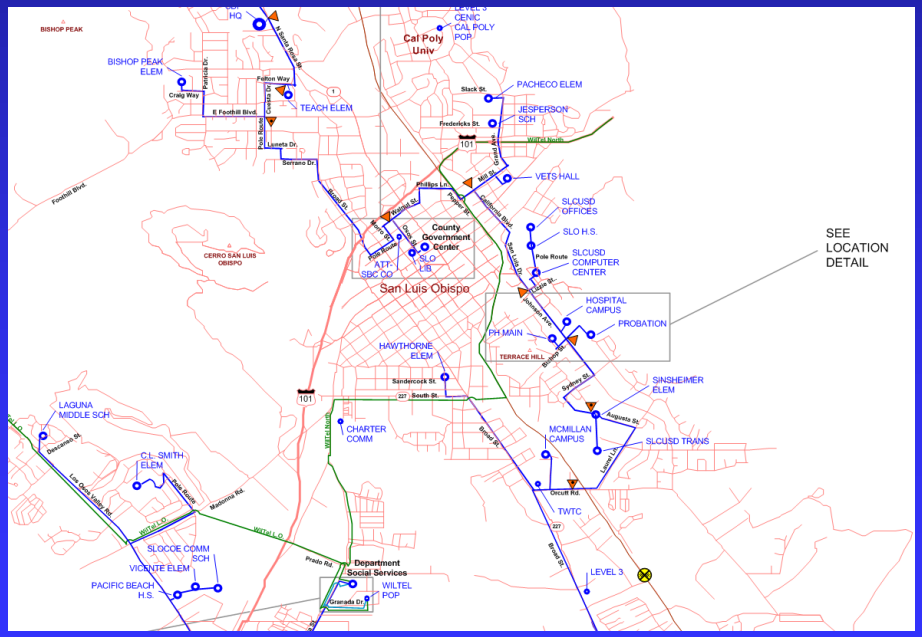
Providing Excellence to Every Customer

Technology Quick Overview

- Enterprise applications
  - SAP HR & Financials
  - Lotus Domino/Notes eMail
  - LiveLink document management
  - Granicus
- SmartPhones (Good) and BlackBerry
- Video Surveillance
- Mainframe and Microsoft mix
- Nortel network
- Centrex Telephones
- Mainframe (custom apps)
  - Property Tax
  - Law & Justice
  - Budget
- Birth Certificates
- Planning and Building
- Public Safety Microwave

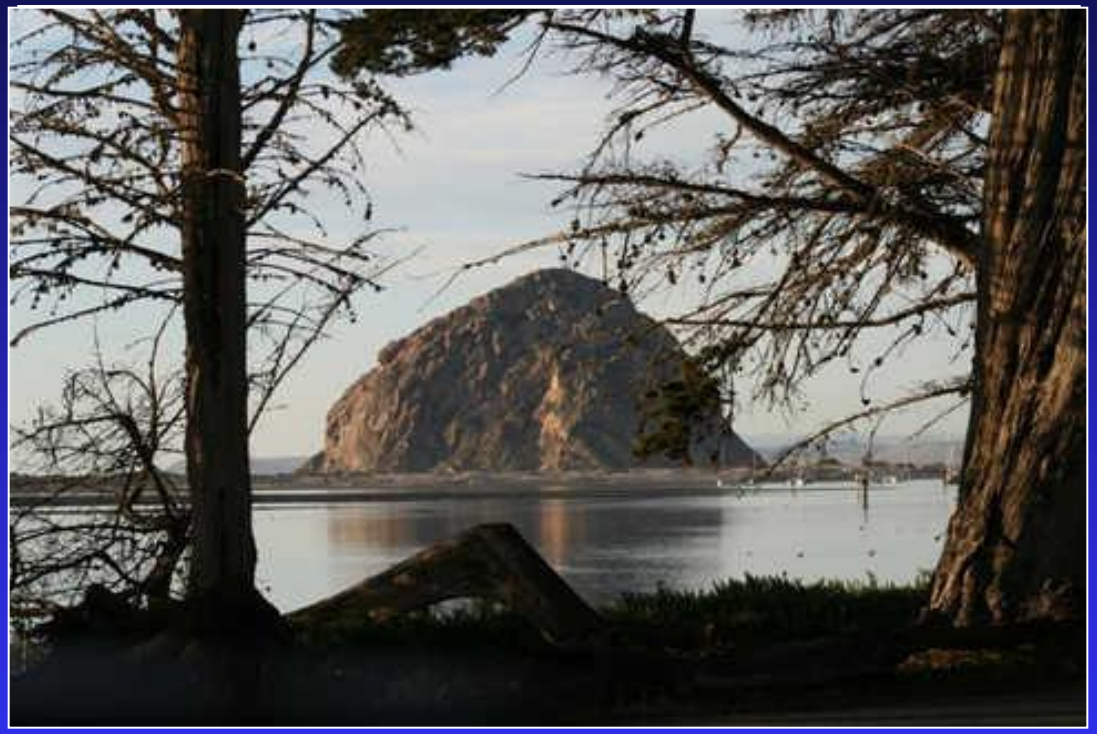
Major Initiatives

- Integrated document management
- ERP (SAP) upgrade
- Integrated criminal justice (Sheriff, Probation, District Attorney, Courts, BizTalk)
- GIS



Major Initiatives

- Parks reservation
- eMail upgrade
- Fiber Optics build-out
- Electronic Health Records
- Disaster Recovery
- District Attorney Case Management



Enough Already
Let's Talk Wireless

WarDriving

WISP

Is it secure?

Is it safe?

Social Engineering

WPA

802.11g

Modems

802.11n

Firewalls

WEP

802.11b

Can I do it
on my own?

WiMAX

SSID

WiFi

Access Points

Routers

Who is MAC?

Free Internet

FTTH

Auto-Connect

Review - Why get on the Internet?

- News
- Information
- Communication
- Recent / Occurring Events
- Social Networking
- Entertainment
- Download Music, Movies, and More
- Banking
- Education
- Fun

Review - Getting on the Internet

- DSL - Digital Subscriber Line a family of technologies that provides data transmission over the wires of a local telephone network.
- Cable – Provides data communication via radio frequency channels on a cable television (CATV) infrastructure.
- Satellite – Use geostationary or low earth orbit satellites to provide wireless data communication almost worldwide, including vessels at sea and mobile land vehicles. Dish access is a Satellite technology.
- WISPs – Wireless Internet Service Providers use a wireless connection to provide data transmission, requires line-of-sight. Often referred to as point-to-point wireless. WiMAX - Worldwide Interoperability for Microwave Access is one of the technologies used by WISPs.
- FTTH – Fiber To The Home provides data transmission using fiber optic cables.

More Review - Last one, I promise

- What is the difference between Broadband Internet and High-Speed Internet?

  None – Both refer to connections at 256kbps or higher

- But, Guy, which connectivity should I use?

  Generally speaking…

Slower → Faster

Modem	Satellite	DSL	Cable	Fiber

Stay within your budget and use the fastest one you can get in your area

Inside The Home

- Modem

- Wireless Access Point (WAP) and/or Router

- Devices

Modems, WAPs, Routers

- Sometimes separate, sometimes (more and more) all-in-one

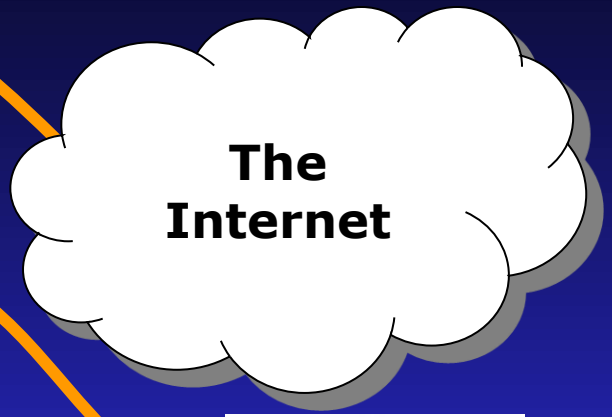
Connecting Devices - Wired

- Network Interface Card (NIC) aka Ethernet Card
  - Usually installed “internally”

- Requires an Ethernet Cable (CAT 5 / CAT 5E / CAT 6)

Inside The Home - Wired

- Modem

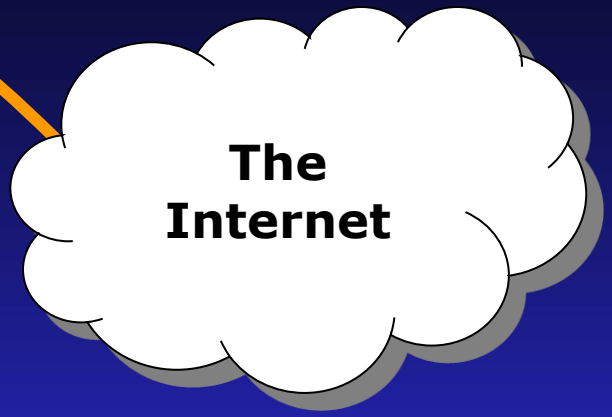


- WAP – Wireless Access Point

- Devices

Inside The Home - Wireless

- Modem



- WAP – Wireless Access Point

- Devices

Inside The Home - Wireless

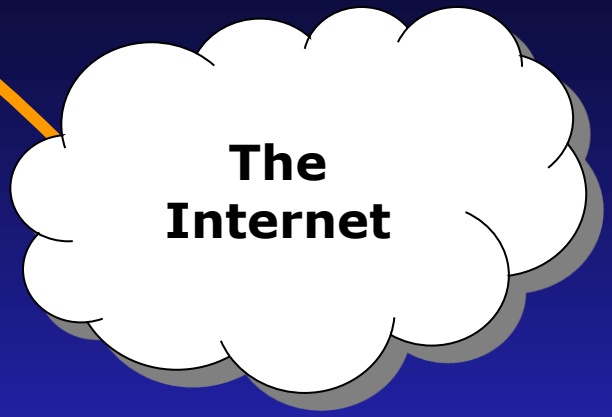
- Modem / WAP Combo

The Internet

- Devices

Inside The Home - Hybrid

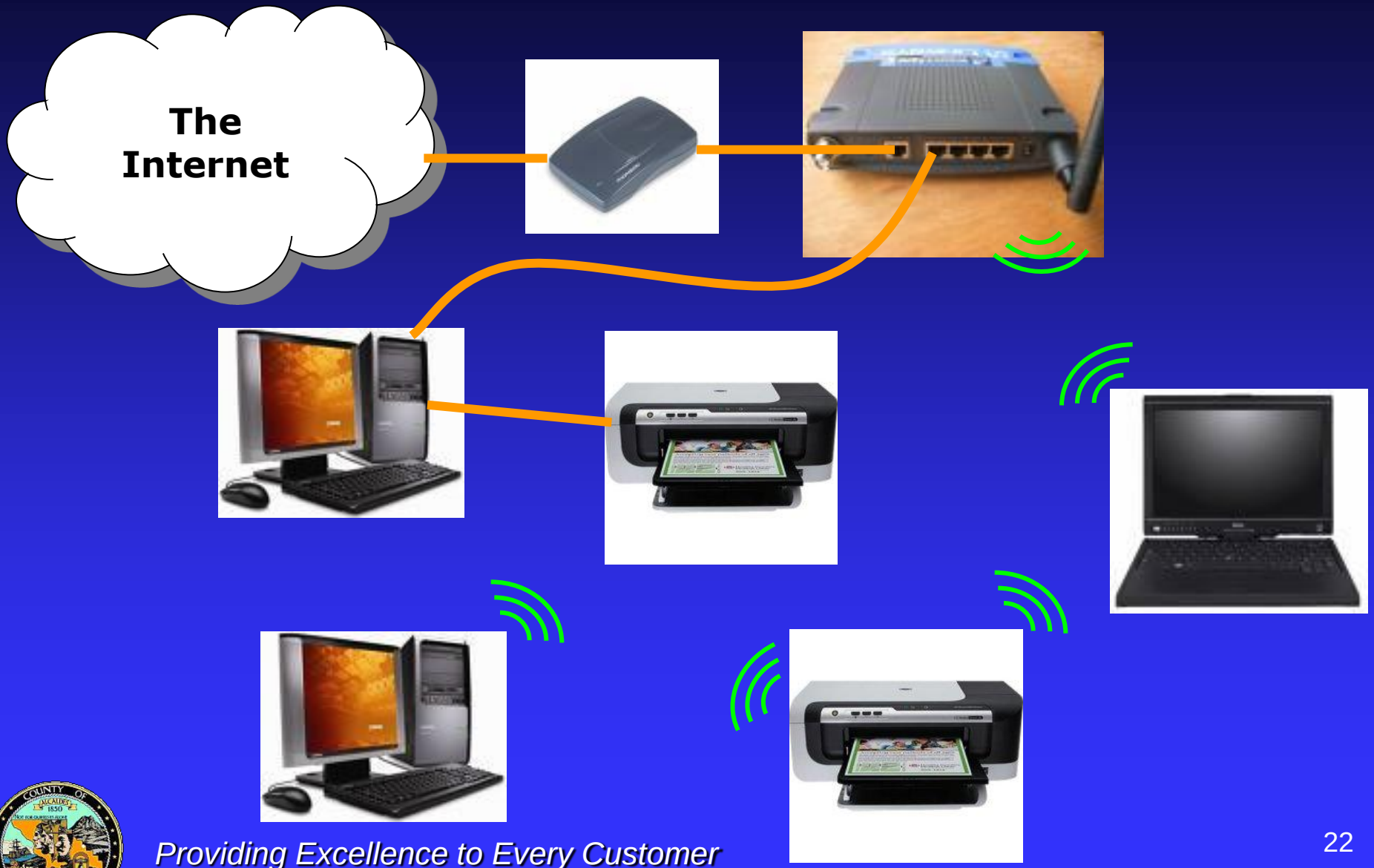
- Modem



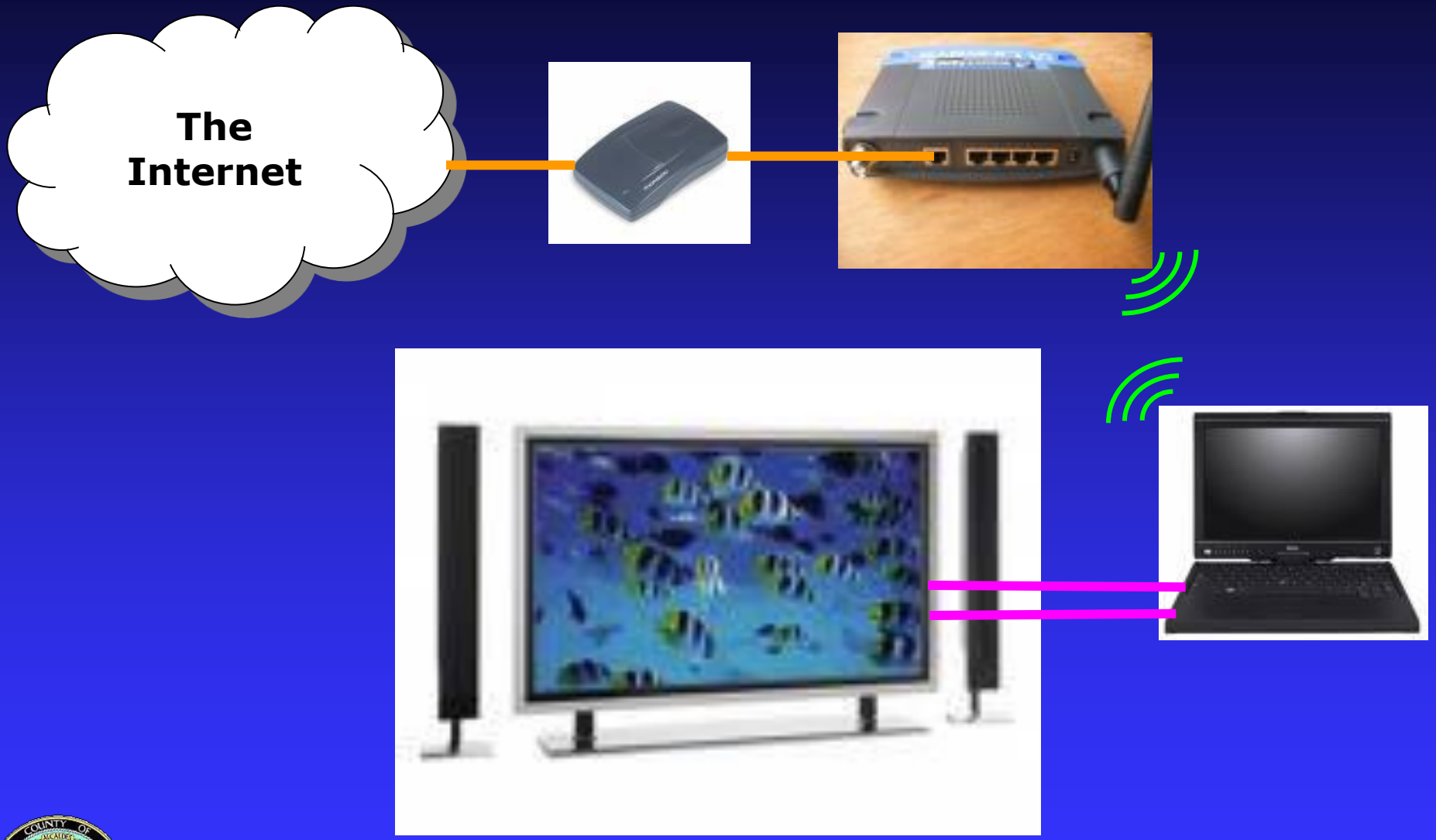
- WAP – Wireless Access Point

- Devices

Other Configurations



Other Configurations - NetFlix



Securing your Wireless Devices and your WAP / Router

- Do Not Auto-Connect to Open Wi-Fi Networks
- Change Default Administrator Passwords (and Usernames)
- Turn on (Compatible) WPA / WEP Encryption
- Change the Default SSID
- Enable MAC Address Filtering
- Disable SSID Broadcast
- Assign Static IP Addresses to Devices
- Enable Firewalls On Each Computer and the Router
- Position the Router or Access Point Safely
- Turn Off the Network During Extended Periods of Non-Use

WPA, WEP, SSID

- Wi-Fi Protected Access (WPA / WPA2) is a security technology for wireless networks. WPA improves on the authentication and encryption features of WEP (Wired Equivalent Privacy)
  - All things considered, WPA it is better
  - Remember your key or passphrase must match on devices – use something you will remember but that is not easily guessed
- Service Set Identifier (SSID) is a name that identifies a particular 802.11 wireless LAN.
  - Setup something that is unique and identifiable to you, but that doesn’t say too much.

What’s a Wardriver?

- Wardriving is the act of searching for Wi-Fi wireless networks by a person in a moving vehicle, using a portable computer or PDA.
- Wardialing was made famous in the 1983, Matthew Broderick movie WarGames.

Wireless IS the future

- More hotspots – Hotels, RV parks, coffee shops, malls, bookstores, airports, marinas, parks
- After that, there is lots of speculation
  - Spectrum will be key
    - Regulated – Cellular vs Unregulated – Wi-Fi
  - $100 Smartphones (not just iPhones and Droids)
  - “There’s an app for that….”
  - Faster connectivity for truly mobile devices
  - Universal access – jump from Verizon to T-Mobile to AT&T
  - Wireless VoIP

Safe Surfing

- Use anti-virus and anti-spyware – lots of good free ones – www.cnet.com AVG free, malwarebytes, ccleaner
- Use different, strong passwords – 8 characters, numbers, special characters, upper & lower
- Pay by credit card use PayPal
  - Don't use a credit card linked to your bank account
- Don't email personal or financial information
- NEVER respond to pop-ups (alt-F4 or X close)

Identity Theft

- Confusing statistics
- Most agree 2 times as likely that you will suffer from losing your wallet/purse than from an on-line transaction
- Most also agree that data stored on-line is just as likely as an on-line transaction
- No real change since 2003? 10 million

Where to get help….

- The County
  www.slocounty.ca.gov/IT.htm
- www.YouTube.com
- www.eHow.com
- Local companies:
  Best Buy's Geek Squad
- Computer clubs
  www.slobytes.org/index.shtml -- for SLO
  sites.google.com/site/northcountycomputer/ -- North County

Questions & Answers