CISCO SYSTEMS

CONNECTED COMMUNITIES
for Regional & Local Governments
ITAPA 2005
fbaranec@cisco.com

Introduction

What if you could

- …improve access to public services

- …deliver more services with less employees

- …make citizens feel more secure

- …attract new businesses in your region/town

- …improve community quality of life

- …feel confident about security of your information network

Introduction

Connecting citizens, employees, community-based organizations, governments and suppliers by COMBINING TECHNOLOGY WITH NEW PROCESSES to increase service effectiveness, maintain a safe environment, and drive economic development.

Connected Communities Value Proposition

Agenda

CONNECTED COMMUNITIES

- **What care-about are addressed**

- **What solutions are provided**

- **Examples**

- **Technology behind**

- **Cisco Capital**

A Connected Community ...

COMBINES TECHNOLOGY WITH NEW PROCESSES

INCREASE SERVICE EFFECTIVENESS

MAINTAIN A SAFE ENVIRONMENT

DRIVE ECONOMIC DEVELOPMENT

A Connected Community …

COMBINES TECHNOLOGY WITH NEW PROCESSES

INCREASE SERVICE EFFECTIVENESS

MAINTAIN A SAFE ENVIRONMENT

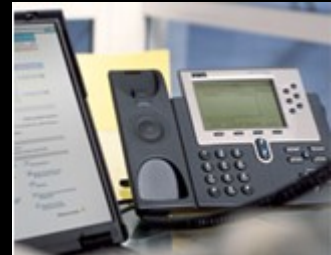DRIVE ECONOMIC DEVELOPMENT

Increase service effectiveness

- AUTOMATE low added value tasks

  - ➢ Allow easily communication within and between agencies (audio, video, data) thanks to IP communication solutions

  - ➢ Manage citizen and businesses requests with IP contact centres

- Improve MOBILE WORKERS effectiveness

  - ➢ Real-time scheduling, route assignments, field reporting over wireless LAN

  - ➢ Real-time access to key office applications

- **REDUCE COST**

  - ➢ **Have a single network to manage for voice, data and video with voice over IP**

N-1-1 ServicesTEXAS
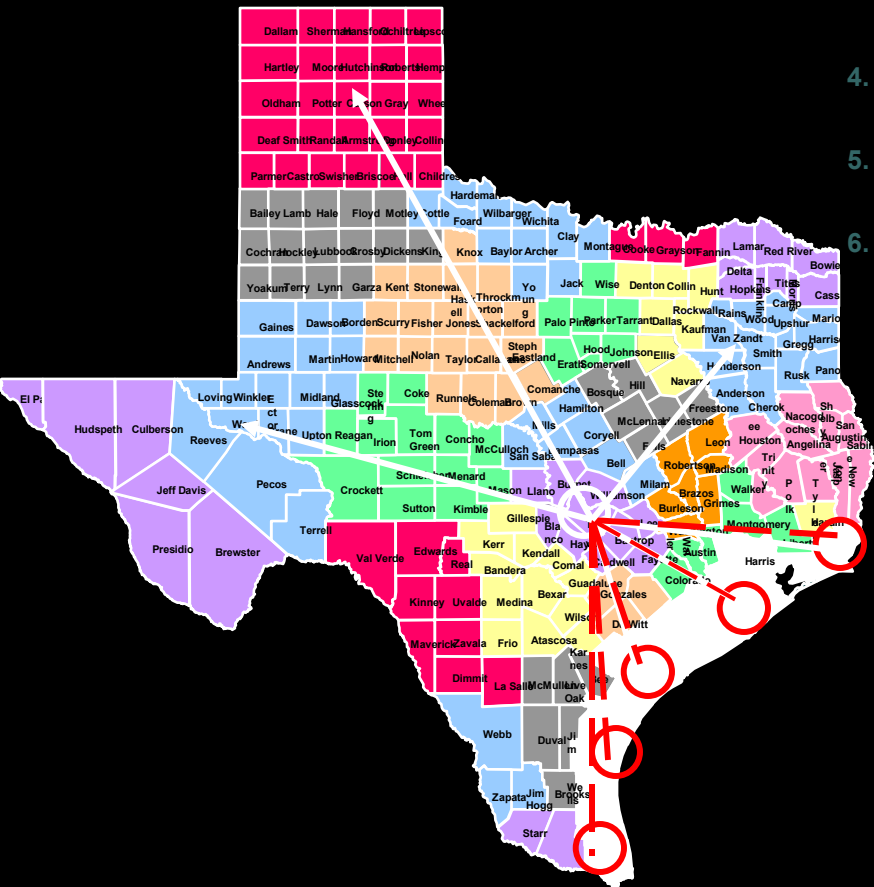## Government Information Delivery

State of Texas – 2-1-1 Texas
Disaster Preparedness Backbone

1. The Gulf coast is hit by Level 5 hurricane.
2. There is significant damage and flooding. All 2-1-1 Call Centers along gulf coast are underwater and offline
4. Call Center agents located in gulf coast region are able to log into the 2-1-1 Network and work from a remote location through VPN.
5. TIRN central processing recognizes unavailability of call center agents and sends notification alert to all 2-1-1 call centers.
6. I&R Network begins routing gulf coast incoming calls to remaining 20 centers.

Emergency Alert

Extreme Flooding in Gulf Coast
2-1-1 centers down in 5 regions
Calls to begin routing immediately

Hurricanes Katrina and Rita

- **2-1-1 Expands Overnight to handle Katrina calls**

- **From 2,500 daily to 10,000 daily**

- **12 hours to add necessary capacity**

- **700 additional volunteer operators**

FROM: NOAA

A Connected Community …

COMBINES TECHNOLOGY WITH NEW PROCESSES

INCREASE SERVICE EFFECTIVENESS

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DRIVE ECONOMIC DEVELOPMENT

Maintaining a Safe Environment

- **Maintain services continuity during disruptions**

- **Improve responsiveness and increasing situational awareness**

- **Protect the privacy of citizen and government information**

- **Deliver critical, real-time information to public safety officers**
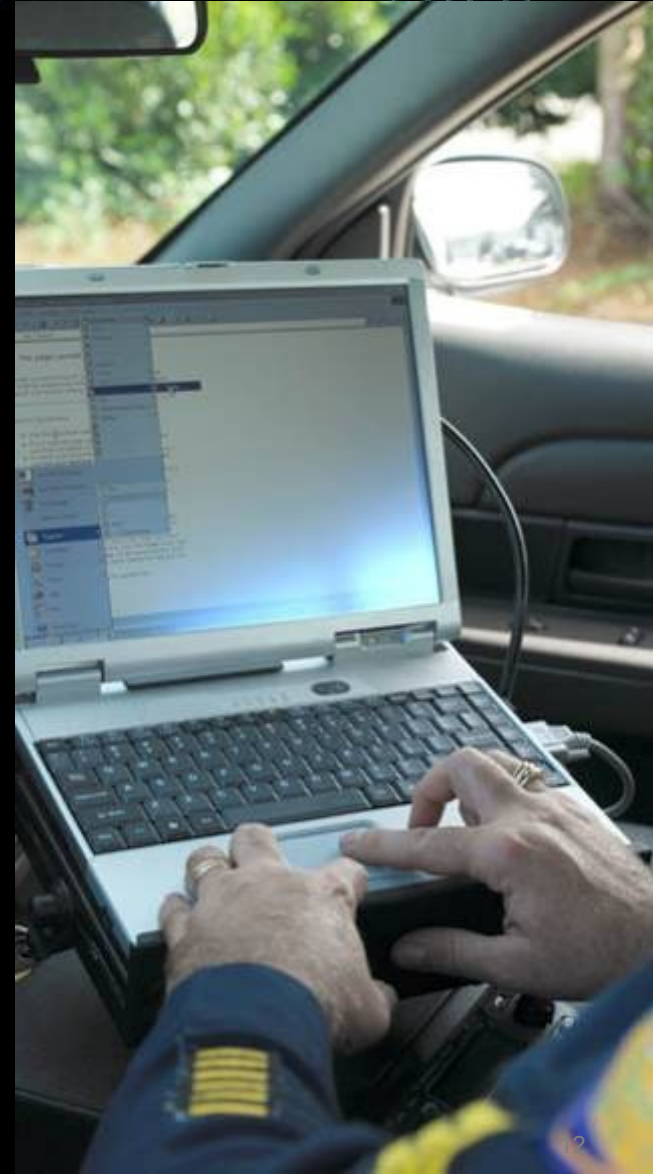
Maintain a Safe Environment

- **PUBLIC SAFETY**

  ➢ **IPTV to increase situation awareness**

  ➢ **Alert broadcasting**

- CUT CRIME

  ➢ Wireless solutions for mobile policemen

  ➢ Wireless cameras to watch suspicious places

- DATA SECURITY

  ➢ Self-defending networks
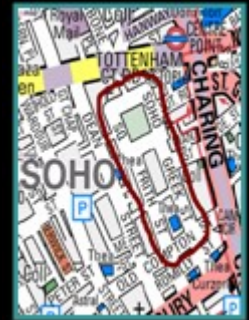
Westminster, London - UK

Project

REDUCE CRIME and improve safety response time to make citizens feel well protected

City of Westminster

Solution

Wireless LAN monitoring to enhance and lower the cost of extension of an existing Close Circuit Television (CCTV) system

"WE HAVE ONE OF THE MOST ADVANCED CCTV SCHEME IN THE COUNTRY…IT HAS PROVIDED IMPORTANT EVIDENCE IN CRIMINAL PROCEEDINGS"

WESTMINSTER'S COUNCIL WEB-SITE

Humberside Police - UK

Project

PROVIDE HELICOPTER LIVE VIDEO IMAGES of major incidents to multiple viewers in multiple sites using a simple web-browser

Solution

Internet Protocols Television (IPTV) solution

"EFFECTIVE POLICING IS LARGELY ABOUT HAVING THE RIGHT INFORMATION. CISCO'S IPTV SOLUTION DELIVERS VALUABLE REAL-TIME INFORMATION TO THE RIGHT PEOPLE WHERE AND WHEN THEY NEED IT"

MIKE FOSTER, NETWORK SUPERVISOR AT HUMBERSIDE POLICE

Region of Lombardy - Italy

Project

INTERCONNECT PUBLIC AGENCIES from 11 provinces including hospitals, police stations, libraries and local health authorities with a secure network offering user authentication

Solution

Virtual Private Network (VPN) solution with 1200 nodes and 60.000 clients

"THIS SOLUTION FULLY INTEGRATES AUTHENTICATION, AUTHORIZATION, ALL-ENCOMPASSING SECURITY, SECURE CONNECTIONS, ACTIVE MONITORING AND SECURITY MANAGEMENT"

FLAVANIO TASSI, LOMBARDIA INFORMATICA

A Connected Community …

COMBINES TECHNOLOGY WITH NEW PROCESSES

INCREASE SERVICE EFFECTIVENESS

MAINTAIN A SAFE ENVIRONMENT

DRIVE ECONOMIC DEVELOPMENT

Drive Economic Development

- **GOVERNMENT ACCESSIBILITY**

  ➤ **Call centres**

  ➤ **Portals, for on-line access to information**

- FACILITATE BUSINESS

  ➤ Secure e-Government services making business simpler to conduct

  ➤ Broadband availability for e-learning, on-line training, videoconferencing, …

City of Almere – The Netherlands

Project

ATTRACT NEW BUSINESSES thanks to real broadband Ethernet services. (Almere is a new city born in 1975 with now 175.000 inhabitants, growing by 5.000 residents a year)

Gemeente Almere

Solution

Shared Wireless Fibre Optic infrastructure enabling multiple service provider to offer competing services

« FOR ALMERE, REAL BROADBAND IS A WAY OF ATTRACTING COMPANIES AND RESIDENTS WHO WANT TO DO BUSINESS, LIVE AND WORK IN A MODERN CITY»

ANNEMARIE JORRITSMA, MAYOR OF ALMERE

Cisco Connected Community Solutions

INTEGRATED SECURITY

CONNECTED COMMUNITIES

IP COMMUNICATIONS

WIRELESS

FOUNDATION INFRASTRUCTURE

Value of a Foundation Infrastructure
Business Benefits Delivered by the Network

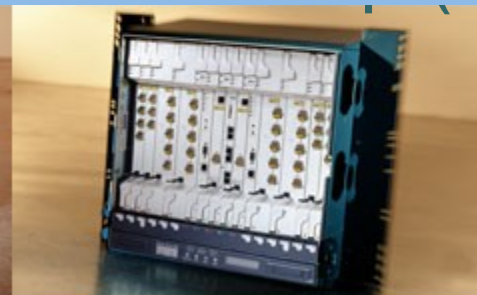CONNECTED COMMUNITIES

IP COMMUNICATIONS

INTEGRATED SECURITY

WIRELESS

ROUTERS

SWITCHES

OPTICAL

STORAGE/SAN

FOUNDATION INFRASTRUCTURE

Benefits of IP Communications

- **Cost Savings**

  Cost savings up to $10 per station per month

- **Simplified Maintenance**

  Reduced cable plant, update

- **Integration**

  Enhances voice with data application

  Standards improve interoperability

- **Improved Service Wait Times**

WiFi
Cisco Metropolitan Mobile Network

A single integrated network infrastructure supporting multiple wireless technologies deployed within or across a community

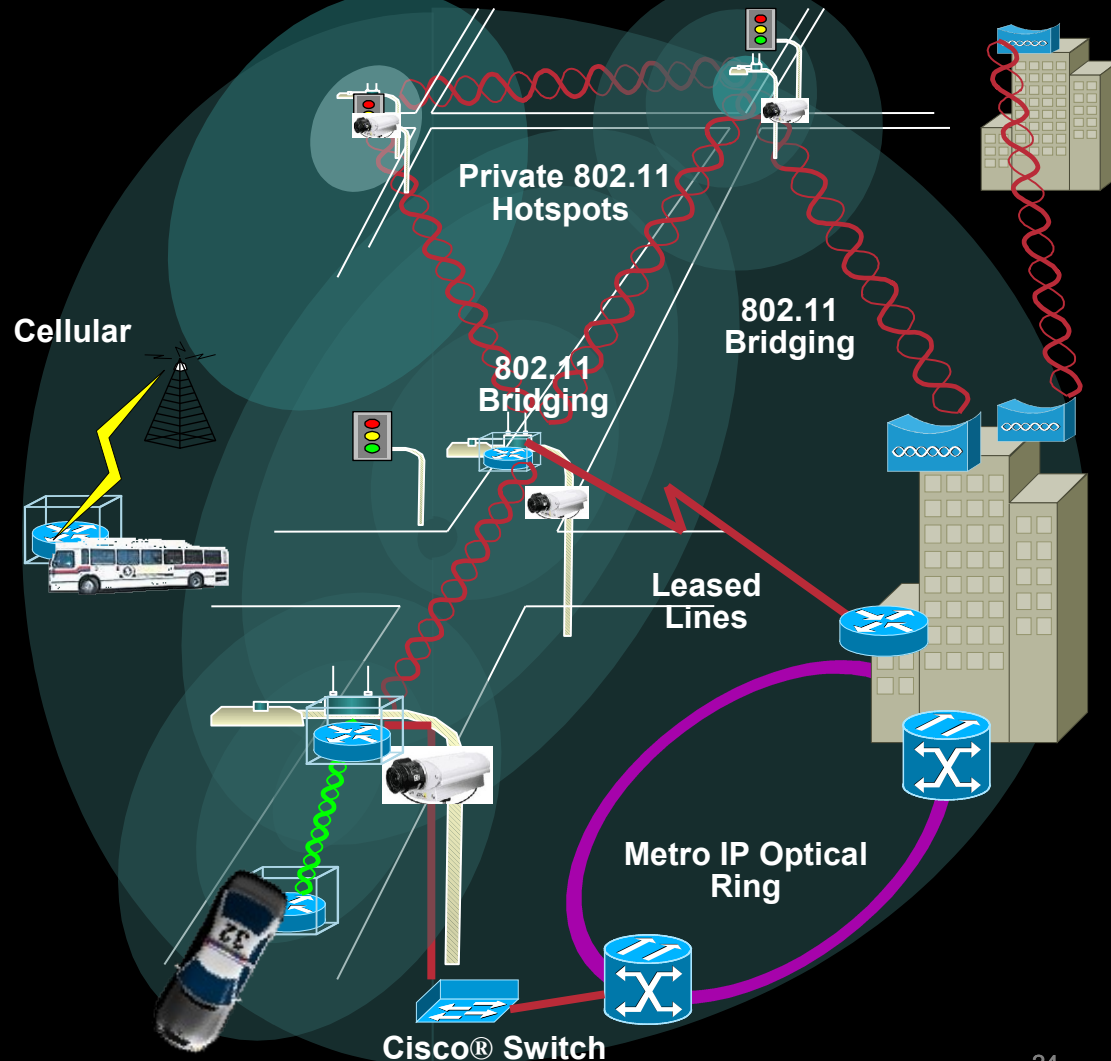# Components of Metropolitan Mobile Networks

In-Vehicle Networks

Fixed Infrastructure

Mobile Workforce

Metro Mobile Network Infrastructure

Private 802.11 Hotspots

Cellular

802.11 Bridging

802.11 Bridging

Leased Lines

Metro IP Optical Ring

Cisco® Switch

Integrated Security Systems and Technologies

PRIVACY

PROTECTION

CONTROL

SECURE CONNECTIVITY SYSTEM

Secure Transport of Applications Across Numerous Network Environments
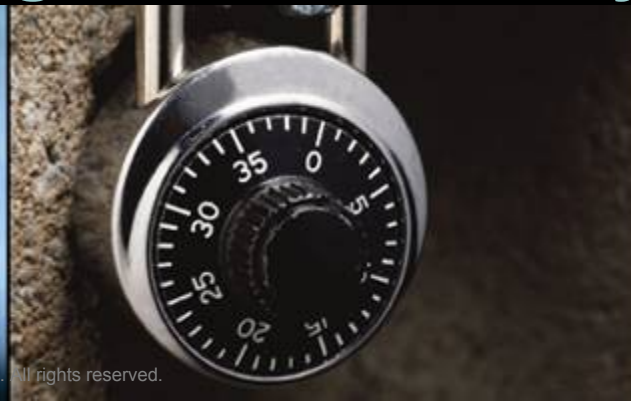
THREAT DEFENSE SECURITY SYSTEM

Collaboration of Security and Network Intelligence Services to Minimize Impact of Both Known and Unknown Threats

TRUST AND IDENTITY MANAGEMENT SYSTEM

Contextual Identity Required for Entitlement and Trust

Management and Analysis

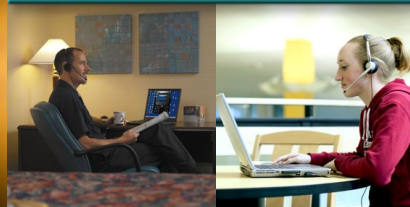# Architecture: Connected Communities

Police HQ

City Hall

Teleworker

Transportation

Citizens

Agency (Data Center)

Agency (Backup DC)

Library

Public Safety

Architecture: Connected Community

Teleworker

University

Police HQ

City Hall

Internet

Agency Data Center

IP

Agency Backup Data Center

Citizens

Library

Transportation

Public Safety

IP

IP

Cisco Capital
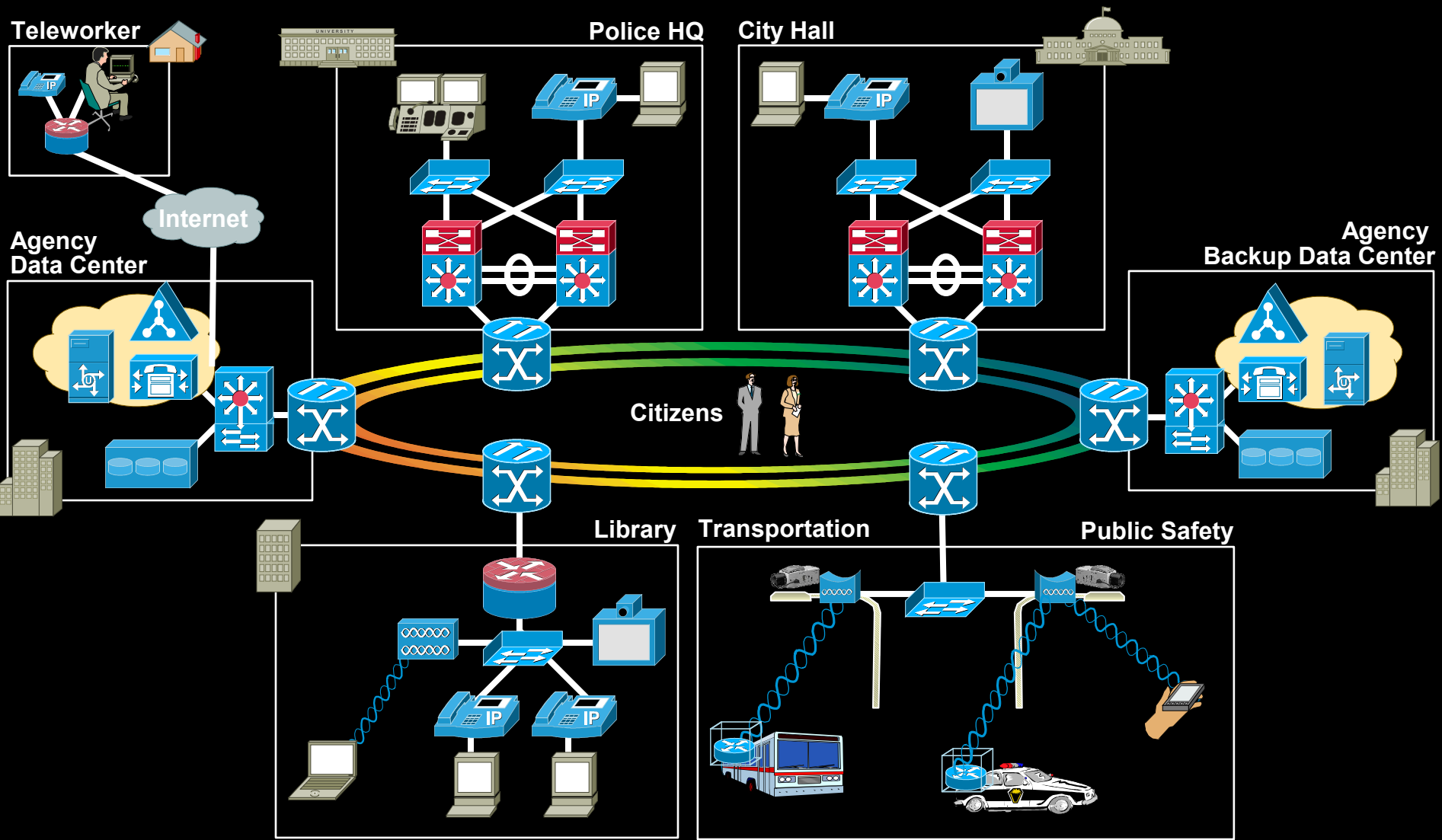
- **Established in 1996, 70 countries $4BN assets WW**

- **Basic Finance Lease**

- **Cash flow Management**

- **Residual Value/Operatin Lease**

- **Sale and Lease BACK**

- **Technology Migration**

Summary

IP COMMUNICATION

INTEGRATED SECURITY

BROADBAND AND WIRELESS INFRASTRUCTURE

are KEY ENABLERS for deploying solutions that

- **Increase SERVICE EFFECTIVENESS**
- **Maintain a SAFE ENVIRONMENT**
- **Drive ECONOMIC DEVELOPMENT**

Cisco Capital

Ďakujem za pozornosť