Ciudades Inteligentes

Costa Rica

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Cisco Latin America
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Agenda

Ciudades Inteligentes

Casos Globales y Regionales

Soluciones Urbanas

City Issues

Rapid Urbanization, Economic Constraints, and Environmental Sustainability

Rapid Growth Puts Pressure on City Infrastructure, Making it Harder to Maintain Citizen Quality of Life

Greater Need to Manage Environmental Impact and Improve Sustainability

Boosting Livability Index Is More Crucial Than Ever to Retain and Attract Trade, Commerce, and Talent

The ability to improve city infrastructure management is increasingly defining social, environmental, and economic success

Cities Have Traditionally Addressed These Issues in Silos

Traffic Management

Public Safety

City Lighting

Pollution/ Environment

Waste Management

Parking Optimization

Need a holistic approach to City Infrastructure

Smart+Connected Cities
Solution Architecture

MOBILE APPS

PARTNER APPLICATIONS AND URBAN SERVICES

| Transport Management | Water Management | Parking Management | Lighting Management | Waste Management | Environment | Safety and Security | Traffic Management | Monitoring/Command Control Centers |

Common Data Layer: City Digital Platform

Wireless WAN (2G/3G/4G/ Wimax) DSRC/LMR

Public/Private WAN

Internet

Smart+Connected City Wi-Fi: shared Network Infrastructure for multi-sensor networks

PARTNER SENSORS

CISCO

VEHICLES

Vehicles

BUILDINGS

Residential | Industrial | Commercial

STREET

Water | Parking | Street Lighting | Waste | Environment | People | Street Furniture | Safety and Security | Traffic

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Smart+Connected Communities Worldwide

Proofs of Concept

- Hamburg: Hamburg Port Authority, Smart Parking
- Nice: Connected Blvd & Spot Mairie
- Seoul: Centios, Personal Travel Assistant
- Amsterdam: Smart Work Center
- Barcelona: Born District & REGS
- San Francisco: Urban EcoMap, Connected Bus
- San Mateo and San Carlos: Smart Parking

New Development

- FIFA 2014 & Rio Olympics 2016
- Songdo
- DMIC & Mantri Developers
- Iskandar
- Qatar Foundation
- Skolkovo
- King Abdullah Financial District & Saudi Economic Cities
- FIFA 2010 World Cup
- London 2012 Olympics
- Lake Nona, Orlando, Florida: Medical City

Revitalization & Growth

- Sao Paolo
- Waterfront Toronto
- Chengdu
- Copenhagen: CPH 2025
- Hamburg
- Smart City Amsterdam
- St. Petersburg & Moscow
- Barcelona
- Stockholm
- Abu Dhabi
- Chicago

Latin America - Use Cases

Rio
- Rio State: Command & Control Center, monitoring, prevention & mgmt. of catastrophes in 700 high risk areas
- Vitoria: develop a master plan in partnership with ID to make Vitoria a world class example of a S+CC City
- Brasilia: city Wifi and Metro Ethernet for ubiquitous digital access to citizens and for future IoE solutions

Mexico City
- National Agenda & ICT policy to create platforms for shared services & Gov't cloud solutions
- Mexico Connected: BB connectivity 98% of population, +250k public buildings: schools.
- Launch of national one Tablet per student / 700K+ tablets/equipping & connecting 20K+ classrooms Aug 2014, and end of 2018 +5 million tablets delivered and more than 125 K classrooms equipped and connected

yachay — CIUDAD DEL CONOCIMIENTO — Investiga, innova, produce
- City of knowledge enabling Ecuador as a Science and Technology exporter
- Started with creation of the master IT Plan for the City
- Innovation Center would serve as a space for the ICT students of the Universidad de Investigación de Tecnología Experimental de Yachay for project research and developing

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City of Guayaquil
Community of Guayaquil gains access to the digital world with Cisco

- Population: 2.5 M

The City of Guayaquil is Ecuador's largest city and main sea port, making it the industrial and economic center of the country.

In the city, only 44% of citizens have Internet access through local telecommunications companies.

BUSINESS CHALLENGE
- With significant poverty and educational challenges, the City of Guayaquil's mayor knew a technological overhaul was needed to address disruption. As a tourist hub for the Galapagos Island, strengthening safety and security was an additional concern.
- The City of Guayaquil's mayor also had serious concerns that residents would suffer from unemployment if they didn't have Internet access and the ability to educate themselves and increase their digital literacy.
- In order to improve the quality of life for tourists and citizens, the local Ecuadorian government decided to create a network that would offer multiple services, including healthcare, education and e-government, along with a unified command center.

BUSINESS BENEFITS
- **Smart city:** With infrastructure to connect hospitals through telemedicine, facilitate educational research through Wi-Fi support, provide tourists with access to city information and allow residents to expand their digital knowledge, the City of Guayaquil is now able to offer its citizens the resources they need to stay involved and connected in the digital world.
- **Business outcomes:** The city's new centralized control and command center will keep operational and labor costs to a minimum and help Ecuadorian residents avoid unemployment due to digital illiteracy.
- **Deal additions:** This agreement is focused on expanding Cisco's Smart + Connected cities presence and helping the City of Guayaquil revolutionize its digital community – the relationship has grown in to a completely connected interface.

City of Barcelona
Smart City Initiative Cuts Water Bills, Boosts Parking Revenues, Creates Jobs and More

Challenge

Improve citizens' quality of life and stimulate new Smart City economy.

Solution

Citywide sensors capture vital information for smart water, smart lighting, and smart energy management projects

Results

$58 million annual savings using smart water technology

$50 million annual increase in parking-fee revenues due to use of smart parking technology

47,000 new jobs created

"We are not really putting focus on a concrete area, but going little steps forward and thinking about how technology can be used to transform the lives of our citizens. When I am referring to citizens, I am referring not only to those citizens like me who live in the city, but also to companies who are part of the city…"

Julia Lopez
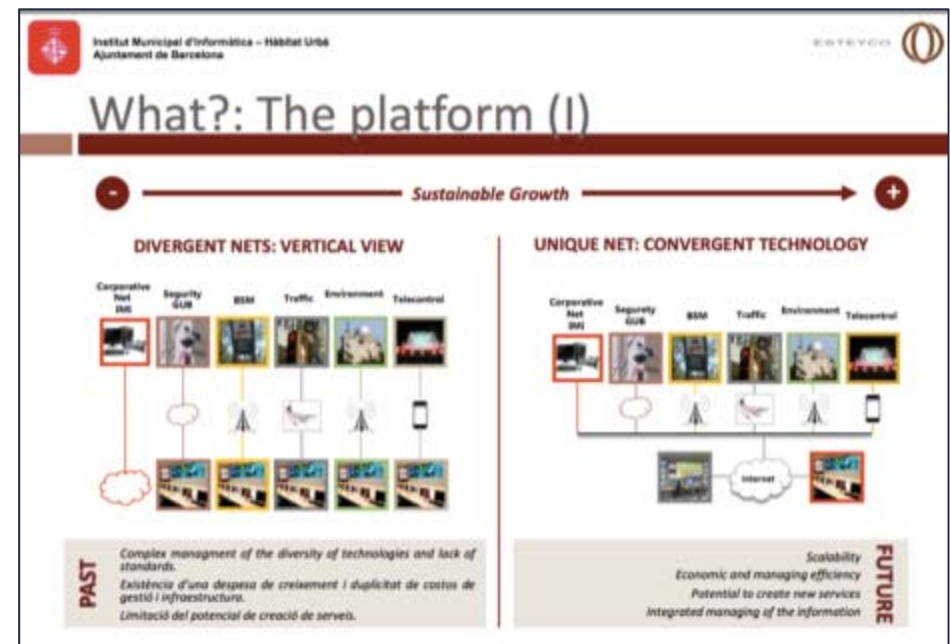Coordinator of Smart City Strategy, City of Barcelona

Barcelona Smart City Model

1. Red de fibra optica
2. Economia de los servicios urbanos
3. Estructura de Wifi urbano
4. Implantacion de redes de sensores
5. Sistema Operativo Urbano
6. Situation Room y Centro de Control
7. Open Innovation
8. Ecosistema de Innovacion
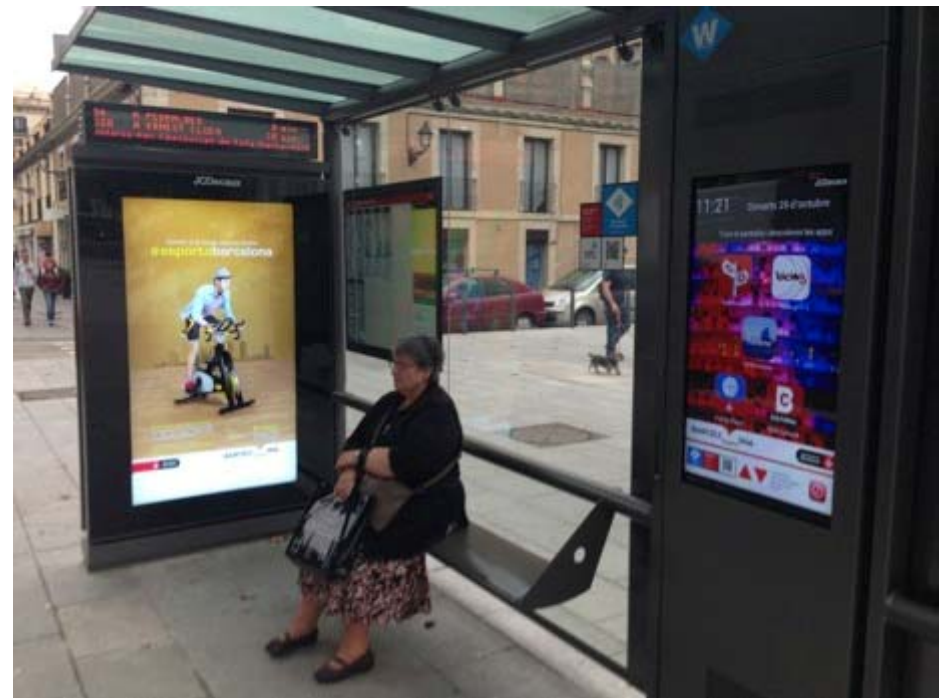9. Barcelona Cloud
10. City Protocol

Fuente: Vicente Guallart, Arquitecto jefe, Ayuntamiento de Barcelona

Barcelona Example: Smart Bus Stop

- Barcelona deploying Smart Bus Stop across the city

- Services provided:

  - Large touchscreen kiosks with **City Apps**
    - Transport, Entertainment, Tourist, City Information

  - **Wi-Fi** Hotspot (Barcelona Wi-Fi)

  - **Advertisement** via a separate LCD screen
    - Impressions and ad revenues subsidize solution

  - **Cisco Location Analytics**
    - the City adapts in real time to the flow of citizens in specific times of the day to deploy extra buses, providing a better flow and a better service to citizens

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Thank You