



The Internet of Things starts with intelligence inside.

Driving business transformation with integrated, scalable, device-to-cloud solutions.



Connected Device



Cloud Systems



Data Analytics

IoT changing the world, one city at a time

Pichaya Limpivest

Marketing Manager, Intel Embedded Sales Group, Asia-Pacific



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Intel's Vision



This decade we will create and extend computing technology to connect and enrich the lives of every person on earth.

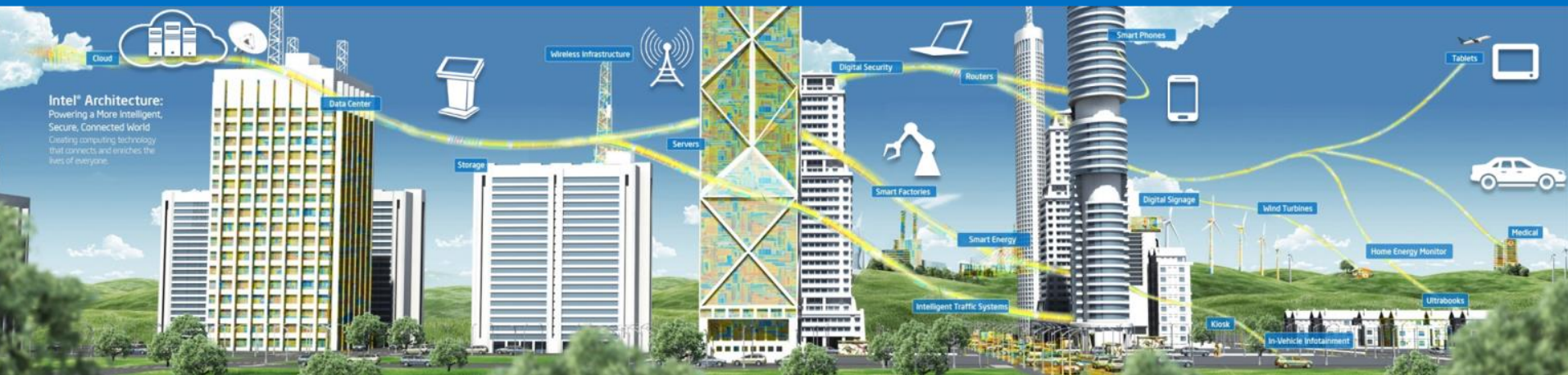


A quick IoT overview



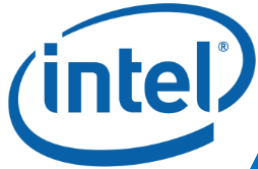
15 BILLION = 35 TRILLION
INTELLIGENT CONNECTED DEVICES GIGABYTES OF DATA

A Transformational Big Data Opportunity



Enable a framework that simplifies the Internet of Things (IoT),
Maximize Data Value & Services Opportunities

Why IoT?



Improved Efficiency
- Fine tune control

Better decisions
through Analytics

Great Customer
Experience

Increased
Profits

Improved
Quality of Life

Key Ingredients for IoT



OT and IT in today's environment

Operational Technology



Information Technology



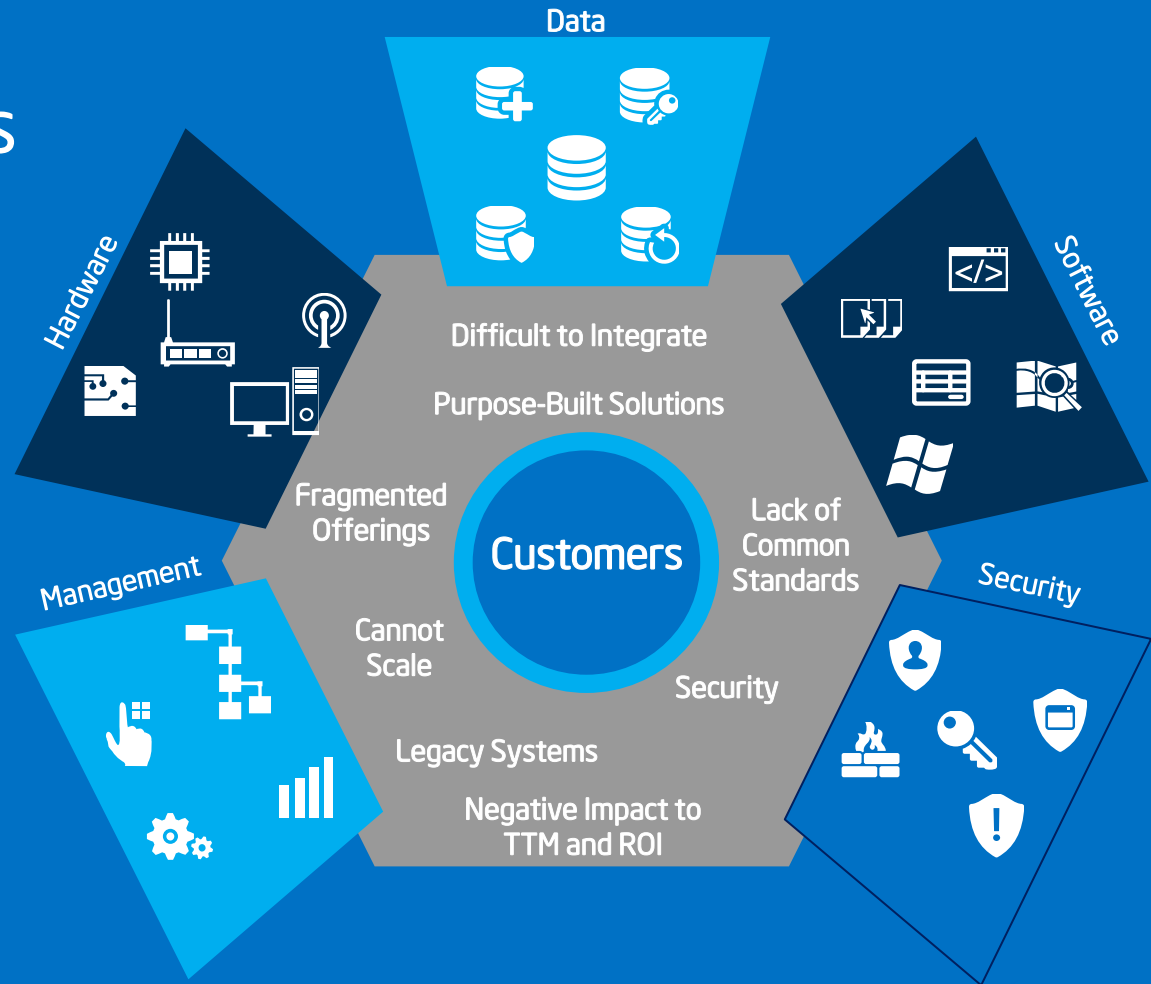
The future of OT and IT

OT + IT

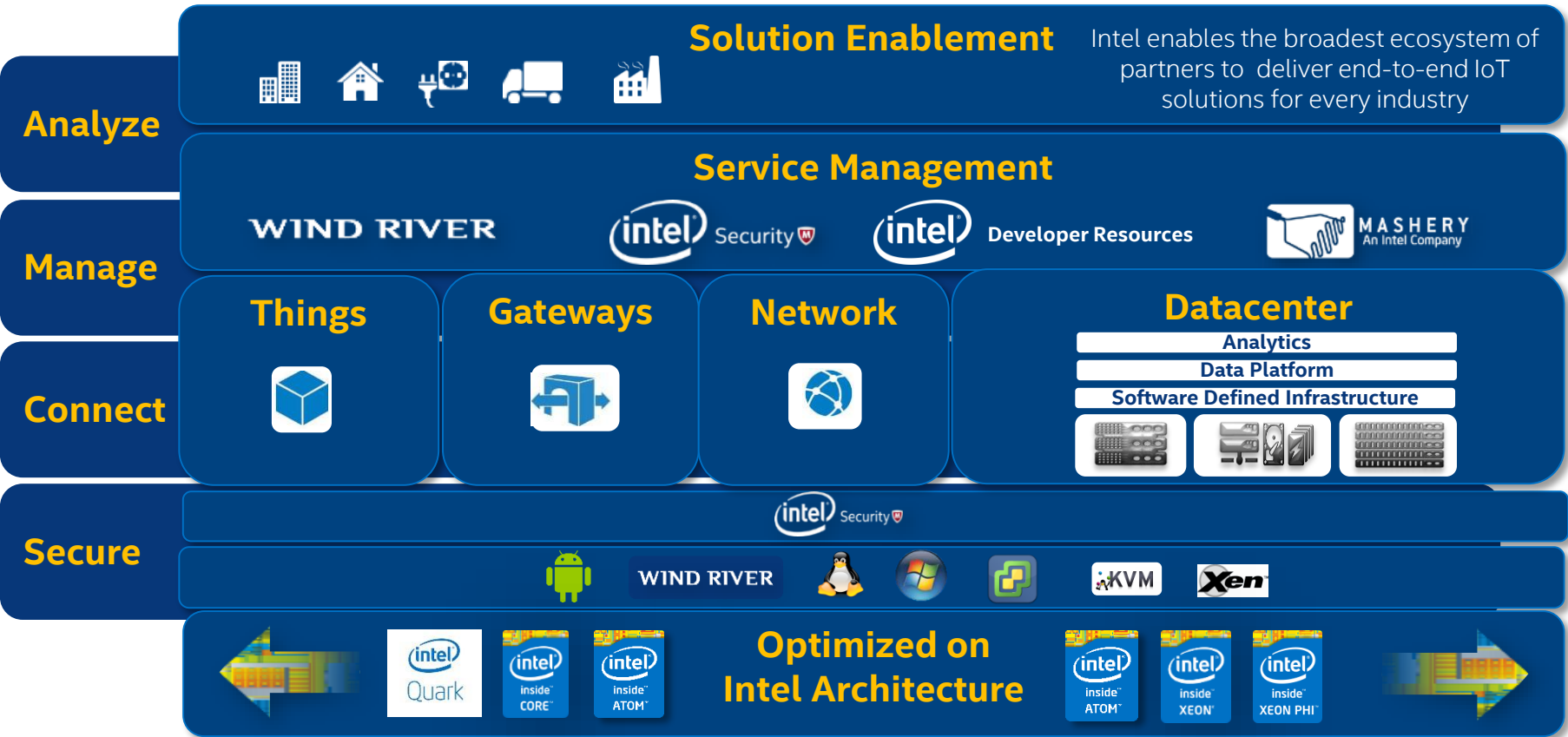


IoT Challenges

IoT implementations are complex given the need to connect things to cloud, to manage and analyze data, and to integrate with existing infrastructure.



Intel building blocks for trust & intelligence in IoT solutions



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Smart Cities



Can we improve transportation using IoT?



Prevent congestion before it becomes unmanageable?



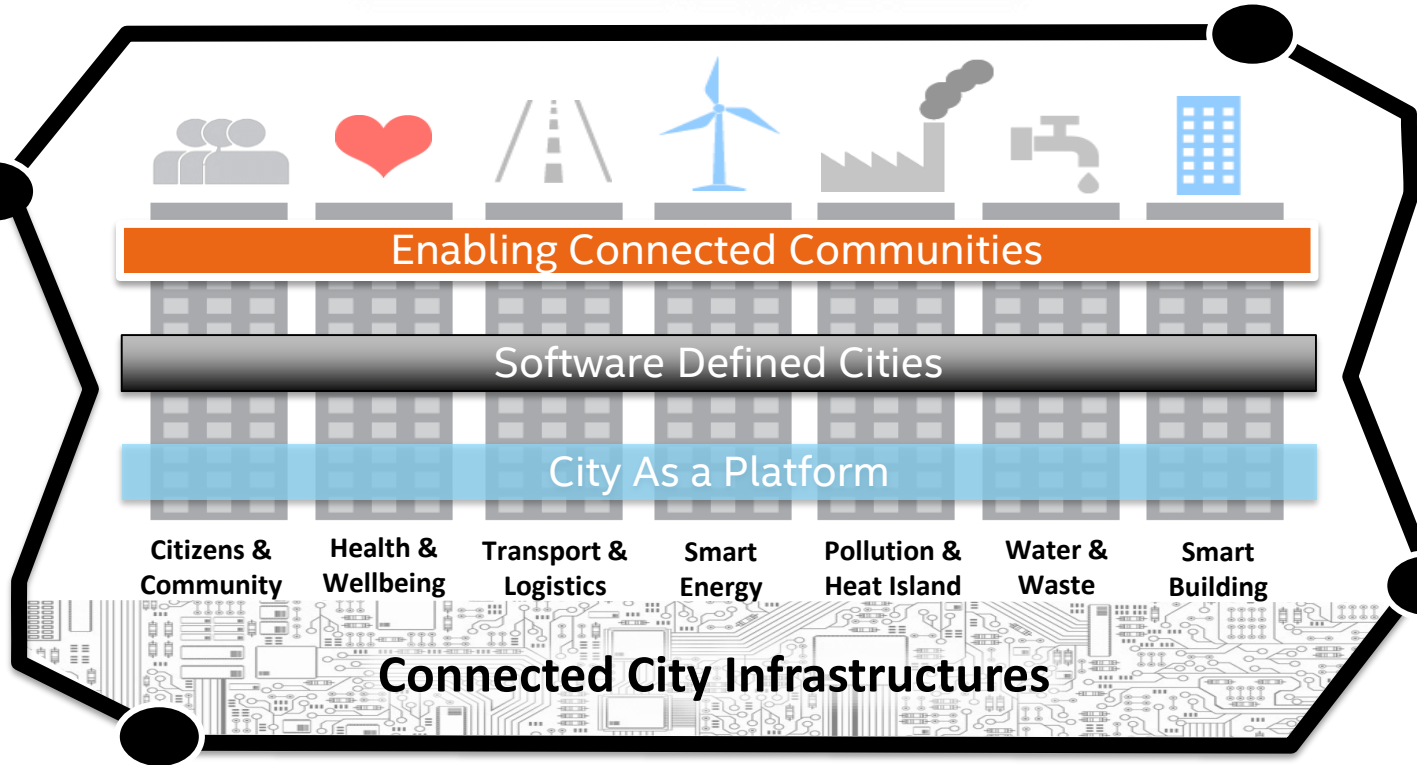
Warn citizens before occurrence of major disruption.

Could City Sensing have predicted Kaohsiung?



AP

Sustainable City Services



Top Smart City Opportunities

1. Transportation
2. Building Automation
3. City Sensing
 - Pollution Monitoring, Traffic, People Flow

Smart Buildings



Why IoT – an example

Chicago Tribune

NEWS

• Front Page **News** Sports Business Lifestyles Opinion A&E

Home > Featured Articles > Flights

Thousands delayed after smoke at FAA facility halts flights

May 13, 2014 | By Jon Hilkevitch and Kim Geiger | Tribune reporters

There was smoke but no fire Tuesday at a vital air-traffic center tucked away in an Elgin office park, but its evacuation left thousands of passengers in Chicago and across the country waiting hours for flight stoppages to be lifted at the city's two airports.

The catch-up process continued into the evening, even after the airlines serving O'Hare International Airport canceled more than 1,000 flights and operated more than 1,200 flights late, according to FlightStats.com

Who was impacted:

The airport, the FAA, emergency responders, the airlines, the passengers, and the HVAC company

Cause:

Faulty Fan in HVAC

Result:

1120+ Flights Cancelled costing MILLIONS of Dollars

IoT could have prevented this event and saved Million\$

Smarter buildings are integrated

Information



Greater Security

New business models

New services

Security, Communications, Water, Waste, Services



Energy



Network reliability

Compliance

Flexibility and interaction

A city skyline at night, featuring several prominent skyscrapers illuminated with lights. The sky is a deep blue, and a network of white lines connects various points across the top and right sides of the image, suggesting a digital or smart city theme. A large, dark blue rectangular banner is positioned in the upper left quadrant, containing the text "Smart Cities with Intel Inside" in white. The overall scene conveys a sense of modern urban technology and connectivity.

Smart Cities with Intel Inside



Intel Smart Cities USA

The Smart America Challenge: The City of San José, CA & INTEL Corporation

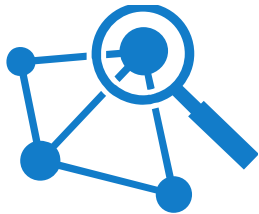


Smart Cities USA: The City of San José, CA & Intel Corporation



COLLABORATIVE PARTNERSHIP

This collaborative partnership, titled **Smart Cities USA**, is exploring the potential for a multi-phased project to help build out the City of San José's vision for a smart, sustainable City that will support 40% growth by 2040.



SUSTAINABILITY LENS' FOR THE CITY

The vision is to expand this sensor network to include Sound and Micro Climate Sensors which can create a “sustainability lens” for the City



Smart Cities USA San Jose

City Government Defined Use Cases

Downtown Events & Air Pollution



Data Stream
Correlations



Improving Traffic
Flow & Parking

Sustainable Traffic Planning



Smarter Travel-
Planning & Monitoring



Public Notifications

Air Quality in Planned Development



Growth for Urban Villages



Local air Quality data as an
Urban Planning Tool

San Jose City-Intel Video

Quadruple Helix Innovation

Government, Academia, Industry and Citizens collaborating together to drive structural changes far beyond the scope of any one organization could achieve on it's own

