

# How the USO Might Help Influence and Enhance the Growth of Smarter Cities

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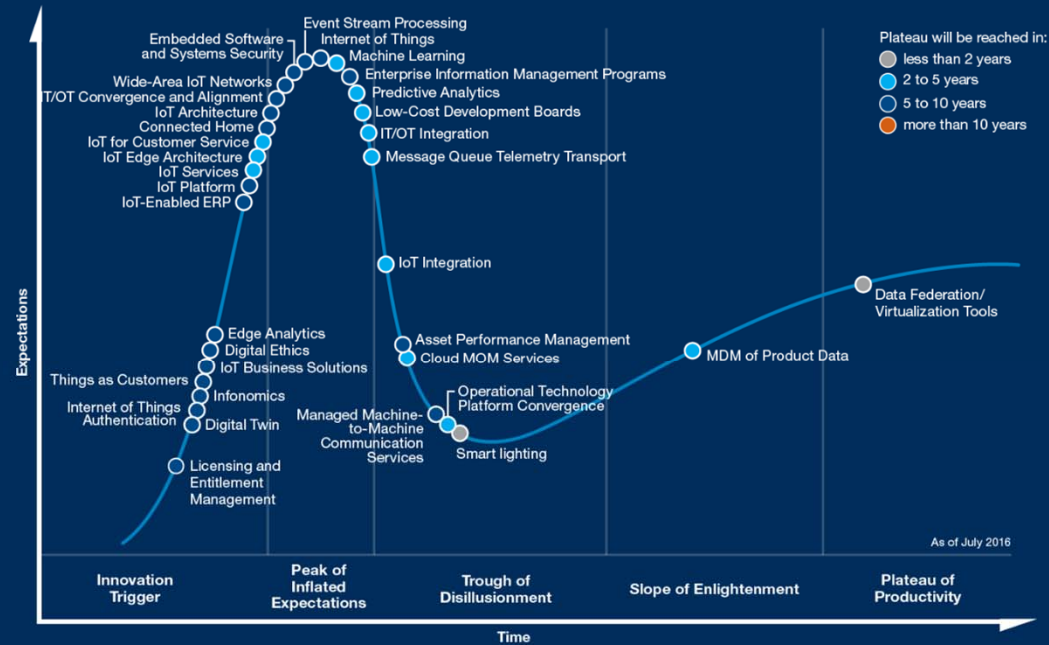
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# Agenda

- Guiding principles
  - **How** the world keeps changing
  - **Key Questions** to be addressed
- State of smarter cities and posts
  - **Differences** between letter and parcel networks
  - **Other Factors** influencing the future
- Exploring alternative business models: implications from network economics
- Influence of the USO on the future of smarter cities
- Summary

## Gartner Hype Cycle for the Internet of Things, 2016



[gartner.com/SmarterWithGartner](http://gartner.com/SmarterWithGartner)

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**Gartner**

# Guiding principles (1)

- Cities are looking to use internet-connected technologies to better meet citizen needs and create efficiency
  - Improved **infrastructure management** aids in cost reduction
  - Greater **access to government services** broadens ability to improve citizen lives
- POs are looking to utilize networks to partner with governments to improve financial situations
  - **Package growth** does not compensate for loss in traditional mail products
  - Cost of **funding physical delivery networks** can be offset by broadening services POs deliver
- USOs can make POs ideal partners for providing government services
  - Geographical coverage, regular data collection, and flexibility **distinguish POs from potential competitors**
  - Physical network **cannot be replicated at scale by new entrants**, pushing strong opportunity to partner

## Guiding principles (2)

- Currently, smart city initiatives have not yet proliferated at rate anticipated
  - **Barriers** include financial, data expertise, and public perception
  - We believe **experimentation with alternative business models** has been lacking
- Network economics principles might help create better opportunity for POs to partner on smart city initiatives
  - Network can **attract both sellers and consumers** of data
  - Greater ability to reduce cost and **provide critical mass of network users**





We seek to address three critical questions

What are the key drivers behind lack of growth in smart cities?

How best explore alternative business models from network economics for successful PO partnerships?

How could the relative strictness of defining the USO improve or hinder these prospects?

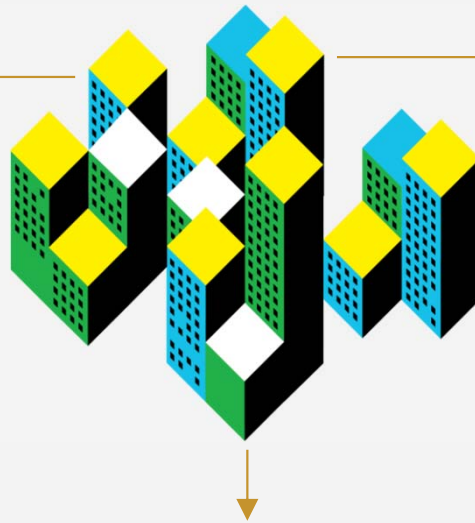
# Some trends and background on smart cities

- Smith (2018) separates smart city solutions into two categories
  - **Pain Killers:** 'must have' solutions prioritized above all else
  - **Vitamins:** solution for a problem the citizen does not know they have
- Examples include
  - Gas leak emergencies, gunshot detection (**Pain Killers**)
  - Public Wifi, solar powered trash compactors (**Vitamins**)
- Smart cities solutions will only become increasingly important
  - **Re-urbanization** exacerbating the future
  - Effects and costs, such as **congestion**, felt by all residents
  - **Smart states**, non-urban residents need services too.
- Clear incentives exist for cities to modernize
  - **Growth incentives** to attract new citizens (Millennials), companies, and fuel infrastructure development cycle
  - **Political** incentives to best utilize tax revenue
  - Benefits accrue across **citizens, governments, private industries, and POs**

# Smart city solution growth has lagged

## **Low risk appetite for experimentation and lack of autonomy for action**

have not given U.S. cities 'permission to fail' to explore innovative solutions and create coordination challenges across localities



## **Basic city functions**

have taken priority over pursuing new smart city solutions; attending to homelessness, overcrowding, and other challenges continue to win the share of attention

## **The fundamental question of generating ROI**

remains the most significant challenge yet presents a significant opportunity

- Alternative business model options exist
- Options can reduce investment risk and create greater network externalities



# Smart cities and the case for posts

**Cities partnering with POs** is a means to overcome significant challenges...

## Financial Viability Challenges

- *Mail volume collapses*
- *Package growth but low margin*
- *Funding the delivery network*

## Ubiquitous physical network

- *230,000 vehicles*
- *35,000 retail offices*
- *500,000 employees*
- *143,000 collection boxes*

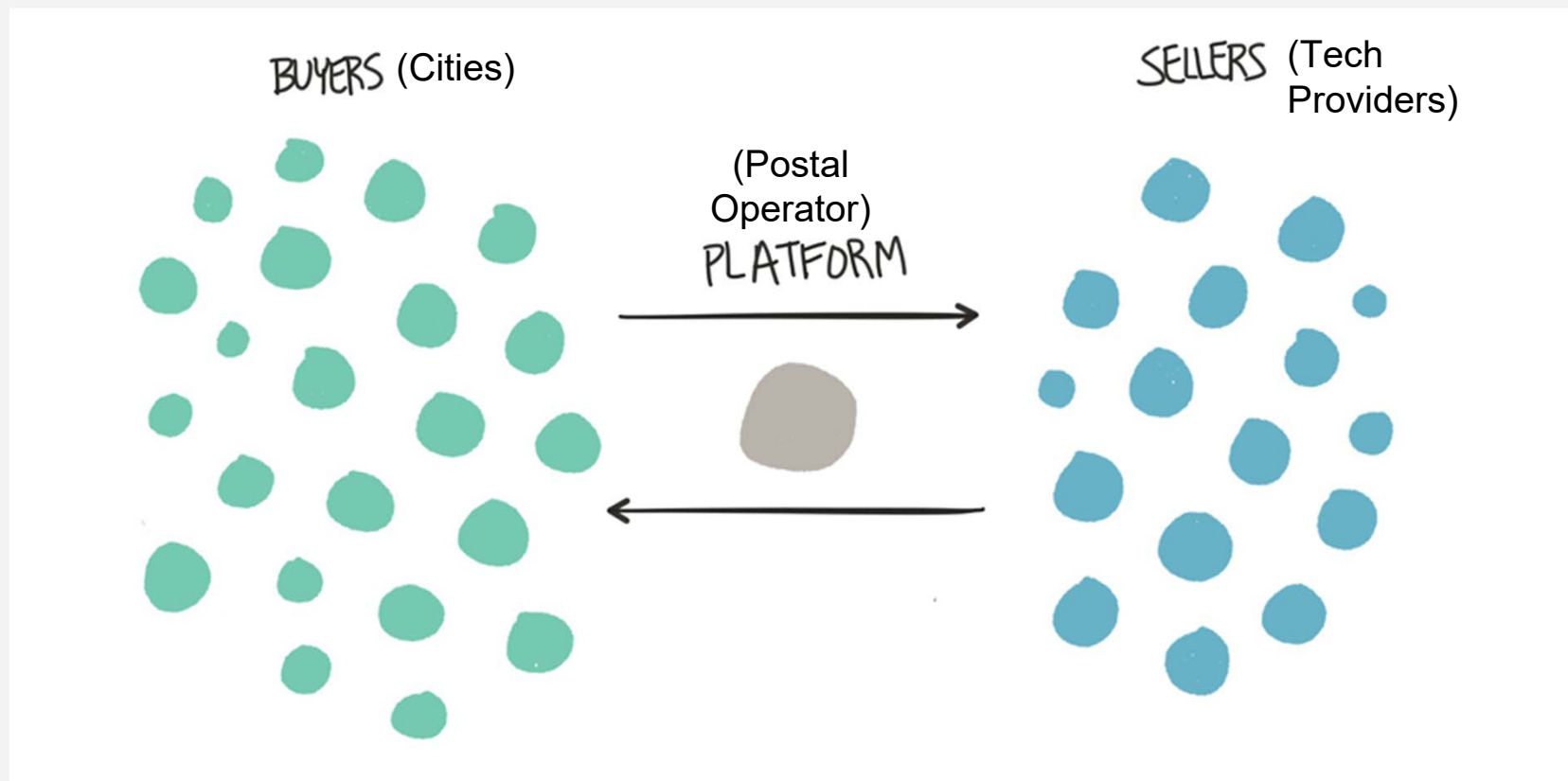
## Trusted Brand and Expertise

- *Strong brand image exerts positive and negative influence*
- *Data technology expertise*

...to **increase smart city growth** and improve the **financial performance** of POs

# Alternative business models and network economics

## Two-sided Marketplace Model:



# Business Model: Classic Production vs. Platform

The Fateful Quadrangle:



	<i>Production Model</i>	<i>Platform Model</i>
<i>Technological Expertise</i>	Srwdkshudru	Whfkqrarj  #uryghu
<i>Financially Viable</i>	Kljk#rvw	Orz#rvw
<i>Regulatory Allowability</i>	Xqdhq	Ohhq
<i>Maximize Social Externalities</i>	Qr	\hv

# The influence of USO on smarter cities development

- Accenture (2008) report states that all USOs cover three common elements: scope, quality, and affordability.
  - **Countries vary substantially** in the specific details
- USO is not specifically defined in statute in the United States
  - “prompt, reliable, and efficient service” in “all areas...”
  - Recent Presidential Task Force recommends **some elements be more specifically defined** to allow USPS to better control costs
- In-depth interviews with smart city administrators reveal demand for...
  - **Extensiveness** of network coverage
  - High **frequency** of data collection
  - **Variety** of types of data collected
  - **Certainty** and **stability** of the network

## In closing

- POs and governments have strong roles to play in capturing potential of smart cities
  - **Benefits accumulate to** many, if not all players in the ecosystem
- Window of opportunity for USO policy change has been opened, especially in the U.S.
  - However, **smart city advocates** might not realize keen interest in postal reform debate should be taken
- Development of smart city platforms will not be easy
  - **Network openness** and **how PO incentivizes participation** requires additional exploration
  - **Regulatory allowability** is a concern, especially in the U.S.
- This paper, however, addresses two critical points for stakeholders
  - Opting for **platform-based** business model versus **standard production** model might help overcome expansion challenges of recent past
  - Current postal policy debate in U.S. requires smart city advocates **to get engaged to influence the role POs should play** in smart city initiatives





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