What Makes Technology Smart?
United Nations estimate:
Globally, 3M people per week move to cities
Singapore

Redeveloped, Protected Harbor
Major Shipping Port
Hotels and Restaurants
Science Museum
Historical Interest Sites
Nearby Sports Venue
Public Transit
University
Arts
Baltimore

Redeveloped, Protected Harbor
Major Shipping Port
Hotels and Restaurants
Science Museum
Historical Interest Sites
Nearby Sports Venue
Public Transit
University
Arts
Owners of Baltimores Harborplace may be in danger of default on loan

The Pratt Street Pavilion of Harborplace at the Inner Harbor was undergoing renovation in this 2018 file photo. (Barbara Haddock Taylor / Baltimore Sun)

By Meredith Cohn · Contact Reporter
The Baltimore Sun

February 22, 2019, 8:00 PM

The New York-based company that owns — and is upgrading — the Harborplace pavilions in the Inner Harbor is in danger of defaulting on its loan for the property, according to analysts at the real estate research firm TreppWire.
Songdo South Korea

$40B Project
World’s First Smart City
High-Tech Utopia
Built from Scratch
Designed Around Technology

Chernobyl-like Ghost Town
A Rare Tour Of Masdar, The Failed Smart City In The Arabian Desert

Last year, French photographer Etienne Malapert traveled to Masdar to document this incomplete city.

Designed for 50,000 Permanent Residents
40,000 Commuters
Zero-Carbon footprint
Rooftop Moisture Harvesters
Wind and Solar Power

287 Residents
“Sidewalk Toronto’s ongoing controversies may serve as the latest warning sign for cities who are considering signing over public spaces to major tech companies.”
The New Imperialism in Malaysia

Chinese money, workers, residents

Malaysian money, workers, residents
“Smart Technology” is not about the Technology, it’s about the Smart
Case Study: Facial Recognition

“Anonymity at the point of collection”

Key senator says federal privacy bill should be as strong as California's
Artificial Intelligence/Natural Language

Can We Regulate AI?
- Privacy
- Transparency
- External Validation

https://ainowinstitute.org/

Alexa

AI Scandals, Our 10 Most Flawed AI

A research institute examining the social implications of artificial intelligence

https://ainowinstitute.org/
Virginia Smart Communities
Virginia Smart Communities!

World's Largest Metropolitan Area Populations

Millions

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tokyo</td>
<td>38.0</td>
</tr>
<tr>
<td>2</td>
<td>Delhi</td>
<td>25.7</td>
</tr>
<tr>
<td>3</td>
<td>Shanghai</td>
<td>23.7</td>
</tr>
<tr>
<td>4</td>
<td>Sao Paulo</td>
<td>21.1</td>
</tr>
<tr>
<td>5</td>
<td>Mumbai</td>
<td>21.0</td>
</tr>
<tr>
<td>6</td>
<td>Mexico City</td>
<td>21.0</td>
</tr>
<tr>
<td>7</td>
<td>Beijing</td>
<td>20.4</td>
</tr>
<tr>
<td>8</td>
<td>Osaka</td>
<td>20.2</td>
</tr>
<tr>
<td>9</td>
<td>Cairo</td>
<td>18.8</td>
</tr>
<tr>
<td>10</td>
<td>New York</td>
<td>18.6</td>
</tr>
</tbody>
</table>
Virginia Smart Communities!


- New York: 8822.7
- LA: 3999.8
- Chicago: 2716.5
- Houston: 2312.7
- Phoenix: 1626.1
- Philadelphia: 1580.9
- San Antonio: 1511.9
- San Diego: 1419.5
- Dallas: 1341.1
- San Jose: 1035.3

Defining ‘Smart’

What does “smart” mean to Virginia?

**Technical:** Dramatic increase in sensors, data, comms, analytics to improve services and foster innovation

**Process:** Community-driven innovation

**Outcomes:**
- Enhanced economic development
- Reduced barriers to entry for all communities
Officials in Fredericksburg, Virginia, are preparing the first phase of a data analytics project, using help from the state government and other partners as it becomes the first city to join a statewide “smart communities” program.

**Objective #1:**
State Services to Empower Communities

**Objective #2:**
Pilot Projects to Demonstrate Possibilities and Build Local Expertise

**Objective #3:**
Develop Virginia as Coherent Market and Source for “Smart” Technology
Downtown Stafford!

County Land

Potential courthouse site

Phase 1
~25 acres

STAFFORD
Virginia

JACOBS Technology Days 2019: Your Connected Future
Downtown Stafford: Request for Innovation (RFI)

• Two-page responses, concepts, product sheets
• Responses in a Downtown Stafford “Innovation Library”
• E-mail responses accepted at: vasmart@googlegroups.com
• RFI/Press Release: http://www.cit.org/vasmart/

Technology Plan example topics
- How will mobility within Downtown Stafford and immediate environs be addressed, including consideration of pedestrian traffic, parking, and evolving short range means of transport?
- How will mobility be addressed between the Downtown Stafford area and the larger region. Are regional transportation capabilities (eg., shuttle bus hub) included?
- What public safety provisions are included?
- How will accessibility issues be addressed?
- How will environmental issues such as weather conditions, pollution levels, energy efficiency, water use, wastewater treatment be addressed?
- How will 5G deployment be accommodated within Downtown Stafford and beyond?
- What features will be incorporated into the design to support community resilience?
- How will all these technologies be integrated; what platforms and open standards should be incorporated?

Financial Plan example topics
- What is the funding model proposed?
- What investment is required of the Town? What control over operation of Downtown Stafford does this investment provide?

Operating Plan example topics
- Who will operate which portions of Downtown Stafford?
- What type of joint governance is anticipated?

Information and Innovation Plan example topics
- Who will own data generated by various technologies in Downtown Stafford?
- What provisions will be put in place to handle cybersecurity and privacy concerns related to data and data usage?
- How will critical infrastructure elements and IoT devices be protected from cyber attacks?
- What types of data analytics are proposed?
- How will public outreach and information be handled?
- How will ongoing innovation be encouraged by the structure of Downtown Stafford?
Thank You!

David Ihrie, CTO
Center for Innovative Technology
David.Ihrie@CIT.Org

Follow us on twitter:
@CITOrg or @dihrie